

# Infographic Design Basics

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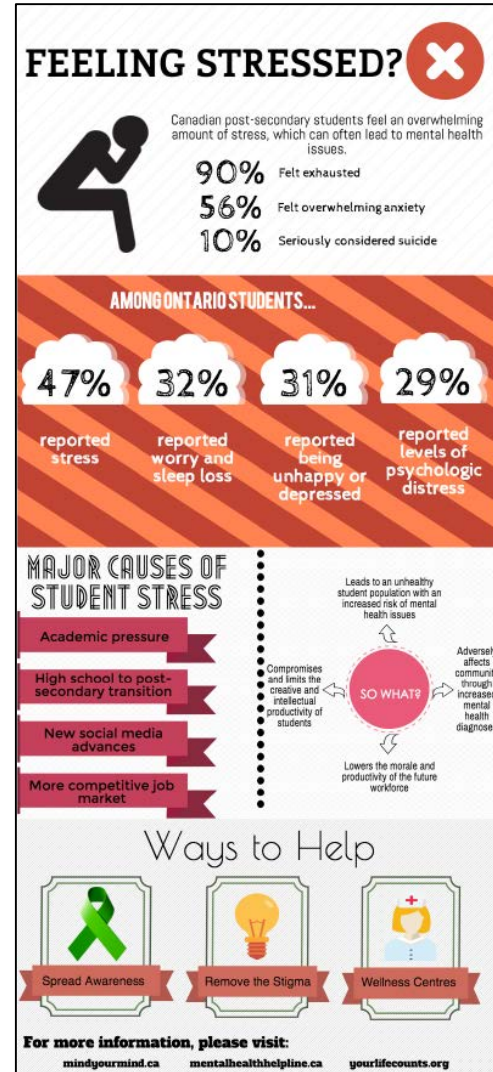
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# Breaking down infographics

1. Message
2. Content
3. Design



1.

# Message

What are you telling the audience about?

# What is the **focus** of your infographic?

- Pick one aspect of your research and use that to shape your story



Summarize what your research is about



Highlight the impact for sustainable agri-food systems

- **So what – who cares?**

2.

## Content

What should you include in an infographic?

# What is plain language?

“ Communication your audience can understand the first time they read or hear it.

Material is in plain language if your **audience** can:

- Find what they need
- Understand what they find
- Use what they find to meet their needs

# Focus on the audience

Plain language is audience specific



Language that is plain to one set of readers may not be plain to others

Plain language is just good writing!

# Why use plain language?

- Improve accessibility to information
- Support dissemination
- To keep your audience reading/listening (or at least not give them a reason to quit)



# Plain language writing tips

- Avoid acronyms
- Use common words whenever possible.
- Use technical terms only whenever necessary
- Organize information logically
- Use an easy-to-read format
- Write concisely
  - Use descriptive verbs and avoid clutter
- Write clearly
  - Write with an active voice

# Developing the content

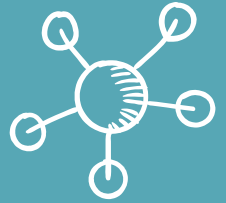
- Prepare a **new body of text** for your infographic
  - Narrow the focus
  - What is your take home message?
- Distill the information
  - Eliminate all but the vital information
  - Reduce your information to concise statements
  - Reinterpret text as charts, graphs, icons or illustrations
  - Make your main title catchy and clear

**Why should your audience care about your research?**

3.

## Design

What should you include in an infographic?

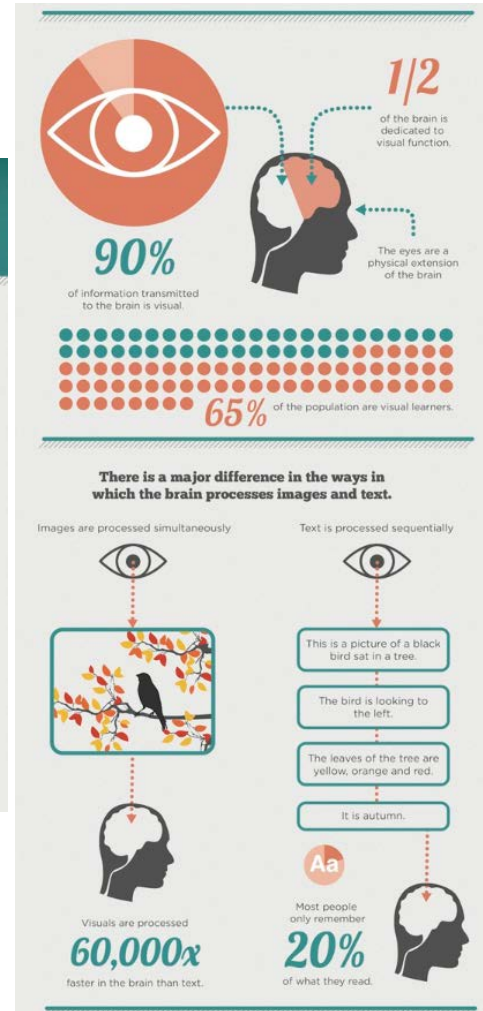
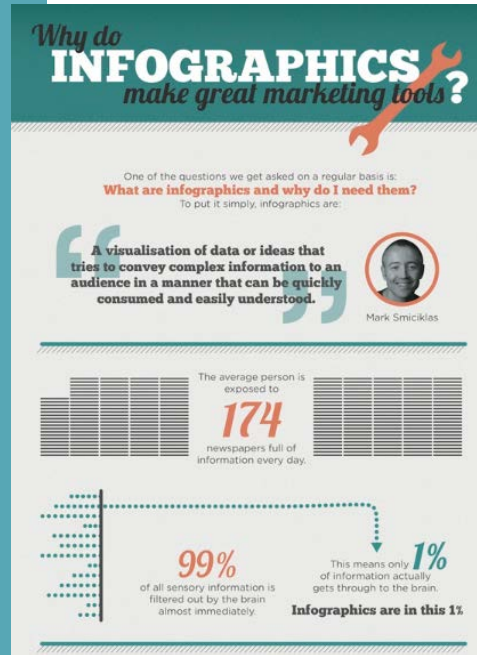


# INFOGRAPHICS VS.

Long-form text, which while containing more information, tends to cause the reader to tune out sooner. How can infographics make your research more engaging and accessible? ...zzzzz

# Infographic facts

- Infographics are 30x more likely to be read than text
- 65% of the population learns best visually than via text
- 50% of the human brain is dedicated to visual learning
- People tend to remember only 20% of what they read
- The human brain tends to filter out 99% of the sensory information it encounters
- However, it notices novel information



# Lets look at another example

- 80% of people consume junk food daily
- One in five children worldwide is either overweight or obese
- Some of the main sources of empty calories include sweetened drinks, fries, red meat, and desserts
- The percentage of children walking to school on foot has decreased from 20.2% in 1980 to 8.3% in 2015
- The total calories consumed daily by the average adult has nearly doubled from 1550 in 1980 to 3000 in 2015



# Design principles



## 1. Form

- Visually appealing
- Colours are harmonious
- Well chosen typefaces



## 2. Function

- Serves its purpose
- Easy to read and understand



## 3. Feeling

- Stays on message
- Cohesive mood throughout
- Evokes proper emotional response

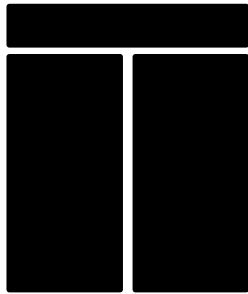
# Layout

The placement of content should be balanced throughout the graphic.

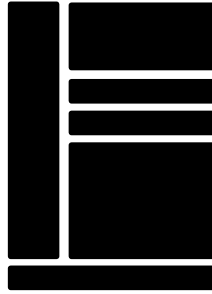
**Symmetrical:** equal on both sides

**Asymmetrical:** skewed but uses white space

**Radial:** arranges objects around a central point



Symmetrical



Asymmetrical

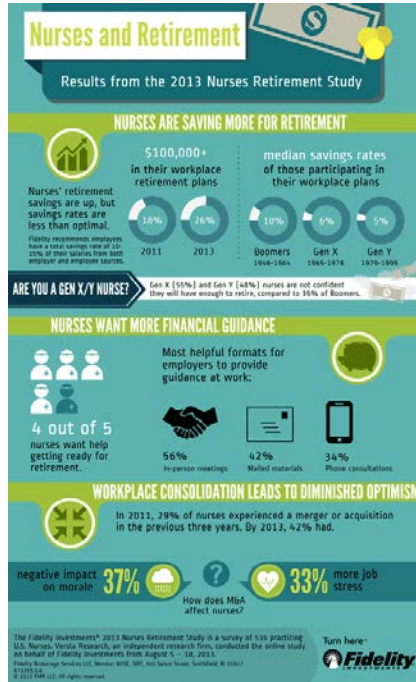


Radial

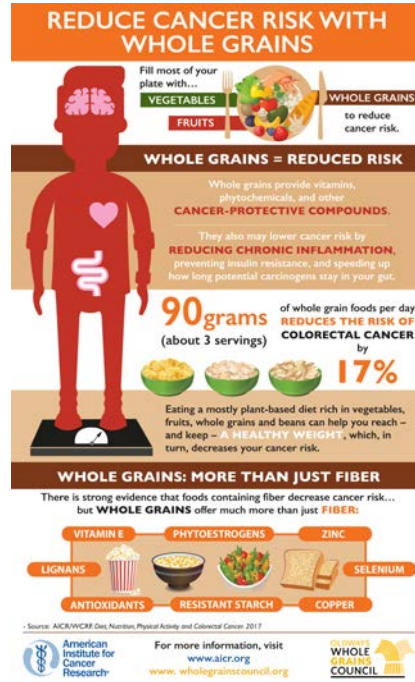


# Layout - examples

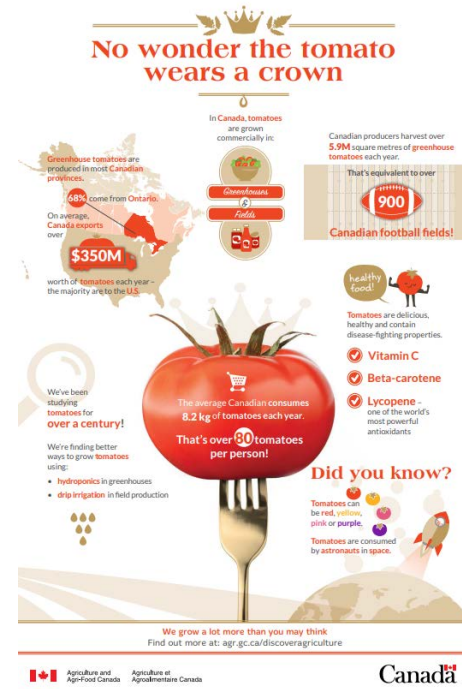
## Symmetrical



## Asymmetrical



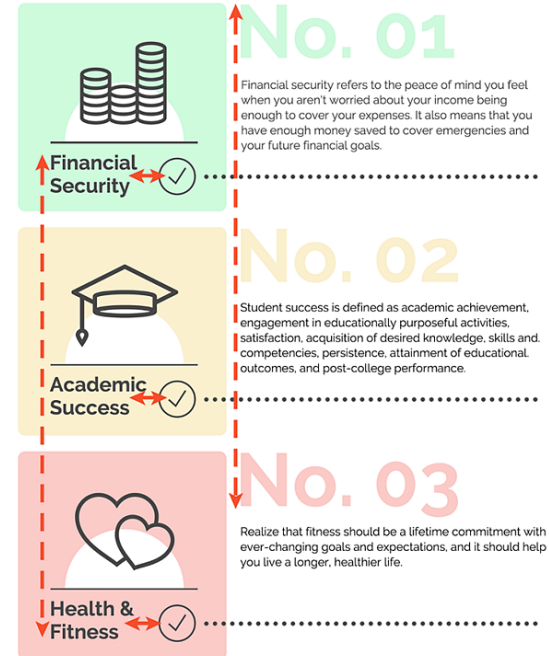
## Radial



# Alignment

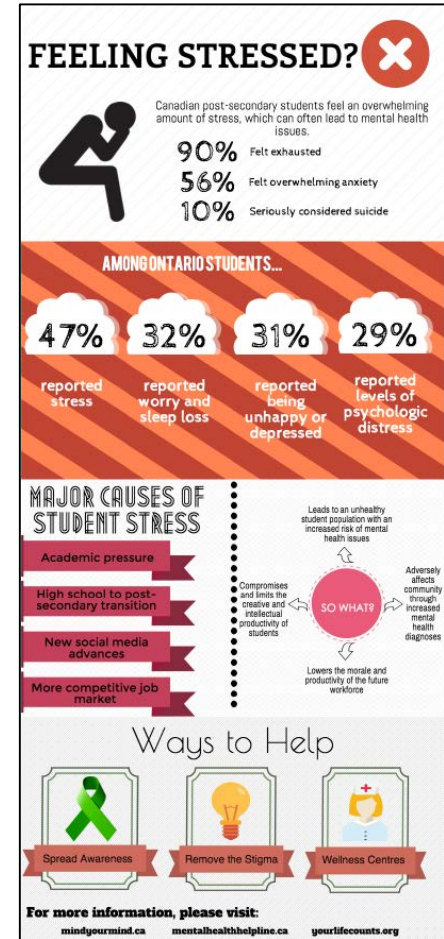
- Ensure that text and graphics are aligned. Use a template and gridlines to help align your elements to each other
- Aligning objects properly keeps a design clean and avoids the messiness of randomly placed objects.

## My Yearly Goals / 2017



# Repetition

- Strengthens the overall look and ties different elements together to help keep them organized and consistent.
- Text, colour, background colour and image styles can all be used to achieve repetition.
- Can also be used to draw attention to an element.



# Proximity

- Creates organization by grouping similar or related elements together. Proximity can include visually connecting elements using placement, colour, typeface, size, etc.

WHAT EVERY YOUNG WOMAN SHOULD KNOW ABOUT BREASTCANCER

*Did you know, breast cancer is not just an older women's disease!*

### Get The Facts

1 in 9 women will develop breast cancer within their lifetime

Breast cancer is the leading cause of cancer deaths in women under the age of 40

18% of breast cancers occur in females under the age of 50

Legend: 50-69 yrs, 70+ yrs, < 50 yrs

### Be Aware of Risk Factors

Know your risks!

- ✓ Age
- ✓ Poor Diet
- ✓ Smoking
- ✓ Long-Term Birth Control Use
- ✓ Ashkenazi Jewish or African Background
- ✓ Physical Inactivity
- ✓ Alcohol Intake
- ✓ Family History

\*Always talk to your family doctor!

### What You Can Do

- eat healthy & maintain a healthy weight
- have confidence!
- perform a monthly self-breast exam
- lower or avoid alcohol intake
- do not smoke
- stay active, be positive!

Ontario Cancer Program | Canadian Cancer Society

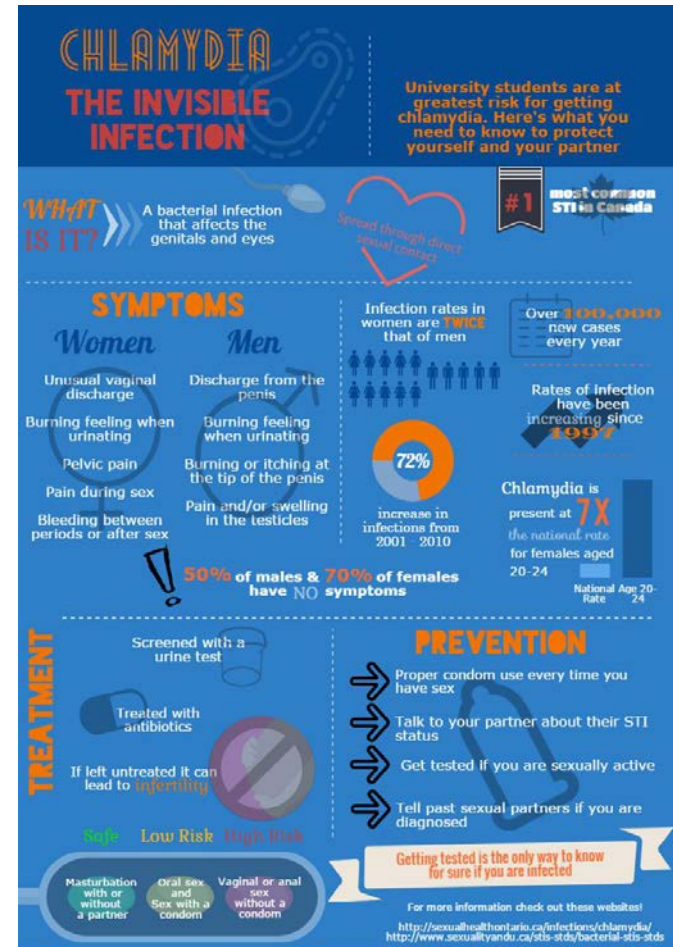
www.cancer.ca/on.ca | www.cancercanada.ca

#mybreasthealth

powered by Piktochart

# Contrast

- Use contrasting colours to highlight the most important element of your poster
- Contrast directs your audience to what's most important



# White space

- Avoid cluttering the design by leaving plenty of space between elements.
- Creates shape and can help highlight the most important pieces of information in your design.
- Never underestimate the power of simplicity.

NO WHITE SPACE

**LOGO**

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WHITE SPACE

**LOGO**

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# Colours

- Start with 1 or 2 harmonious colours
- Choose colours associated with your subject matter or that are prominent within the graphics of your project.



**Analogous colors:**

Any three colors which are side by side on a 12 part color wheel.



**Complementary colors:**

Any two colors which are directly opposite each other.



**Monochromatic:**

One color in many shades.



**Triad colors:**

Colors forming a triangle.

# Typography

- Pick **2-3 fonts** and stick with them for the entire poster

**Sans Serif** - lacks decorative features on ends of letters.

Cleaner and easier to read

**Serif** - contains decorative features on letters. Better for more traditional projects

*Display fonts* –many different styles. Best for small amounts of text (titles, headers) and more graphic-heavy designs

- It is always acceptable to use only one typeface and bold the heading.



# Steps for making an effective infographic

## 1. Story

Identify the key focus/story the infographic needs to convey to the audience. Pick 2-5 key findings to drive the story.

## 2. Think of the big idea

Think broadly beyond the narrow academic audience. Have a very explicit, catchy and simple headline.

## 3. Remember your audience

The aim is to make research accessible and they likely aren't familiar with your research area.

## 4. Design

Pick your images, icons, colour schemes and typography.

# General rules

- **Use text wisely:** If the text was removed, could you still understand the idea your infographic conveys?
- **Lean towards the visual:** People are naturally drawn to images over text. The key point is that infographics are easy on the eyes and simple to read. Add icons to support and explain the text
- **Include a visual hook:** Capture the intended audience's attention. Ideally this also gives the audience an idea of what the infographic is about
- **Visualize data consistently:** Use consistent style and scale for your data visualizations throughout the infographic

# Design best practices

- Use classic fonts – easiest to read
- No more than 2 or 3 typefaces in a project
- Avoid CAPITALIZATION in the body text
- Aim to not have text smaller than 28pt and never smaller than 12pt
- Stick with one icon style
- Use proper alignment – usually left
- Do **not** mix text *sizes* and **weights**
- Create contrast between text and background – dark text on light background is best
- Keep spacing consistent
- Never underline – use *italics*

# EXAMPLES

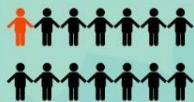
What have past students made?

# Abstract to infographic

This study advances the conceptualisation and operationalisation of consumer engagement in the context of online brand communities (OBCs). Past scholarship has only partially addressed the dimensionality of engagement and the different engagement foci, and these oversights have important theoretical and empirical consequences. This study contributes to the nascent stream of research that aims to theoretically refine and operationalise engagement by espousing the duality of engagement with two engagement foci (brand and community) and seven sub-dimensions of consumer engagement. Using qualitative data from consumers and experts, three survey data sets based on English and French samples, and two pools of mirrored items (one for each engagement focus), the study develops and validates a dual-focus 22-item scale of consumer engagement that can be used to operationalise engagement with various consumer engagement objects.



# Colon Cancer Prevention in Canada



**1 in 14 men** will get colorectal cancer in their lifetime



**70%** of people with colorectal cancer have **no family history**



**1 in 16 women** will get colorectal cancer in their lifetime

**#2**

leading cause of death by cancer **in men**

**Everyday**  
**25 people die**  
of colorectal cancer

&

**Over 95% of people** who die of colorectal cancer are **over 50 years old**

**#3**

leading cause of death by cancer **in women**

## What can I do?

Exercise

Eat Healthy

No Smoking

Reduce Drinking



Screening

you should be tested every **two years** when you turn **50**

**Fecal Occult Blood Test**

**Colonoscopy**

**For More Information:**

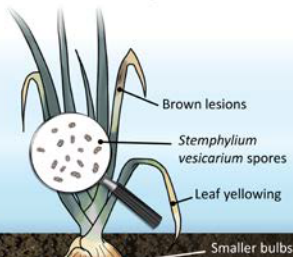
you can visit <http://www.cancer.ca/en/cancerinformation/cancer-type/colorectal/colorectal-cancer/?region=on> or call 1-888-939-3333

# ONIONS UNDER ATTACK

Canada produces **270,000** tonnes of onions/year

**41%**

of these onions are grown in Ontario



A new fungus is causing **YIELD LOSSES**

The fungicide programs **AREN'T ENOUGH**

Our research strives to answer ...

- Where does the fungus live?
- Which chemicals should we use?
- Are there new treatments that can be tested?
- What can we do to decrease disease symptoms?
- Can we apply fewer chemicals and have better results?

This information, and more, will be communicated using:



Grower Oriented Talks



Posters and Infographics



Annual Research Report



Conference Presentations



Social Media

University of Guelph  
Dept. Plant Agriculture

# Genetic selection of sheep resistant to gastrointestinal nematodes in a changing climate

N. Karrow<sup>1</sup>, P. Menzies<sup>2</sup>, P. Fosseca<sup>3</sup>, A. Suarez-Vega<sup>4</sup>, D. Kennedy<sup>5</sup>, E. Borkowski<sup>1</sup>, B. Mallard<sup>6</sup>, A. Cánovas<sup>1</sup>

<sup>1</sup>Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University of Guelph, Guelph, Ontario; <sup>2</sup>Department of Population Medicine, Ontario Veterinary College, Guelph, Ontario; <sup>3</sup>Ontario Ministry of Agriculture, Food and Rural Affairs, Guelph, Ontario; <sup>4</sup>Department of Pathobiology, Ontario Veterinary College, Guelph, Ontario

## How will we grow food in a changing climate?

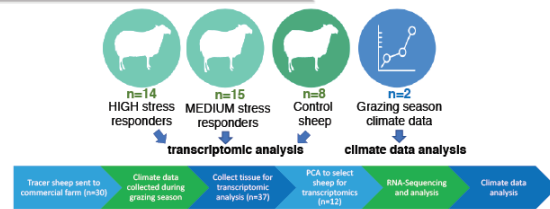
### Background

- Gastrointestinal nematode (GIN) infections are a common cause of mortality and morbidity in Ontario grazing sheep, with *Haemonchus contortus* being one of the most pathogenic
- GIN life-cycles, over-wintering parasite loads and severity of pasture contamination are all impacted by climate
- Changes in climate have the potential to stress grazing sheep, which is known to affect their resistance to GINs

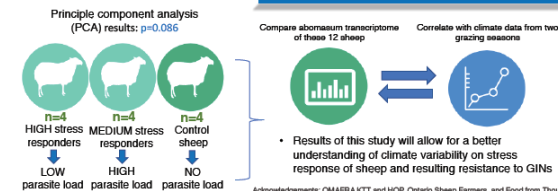
### Objectives

- Compare abomasum transcriptomes using of high and middle stress responding sheep exposed to *H. contortus* using high-throughput RNA-Sequencing
- Examine the effect of climate conditions on *H. contortus* pasture contamination and host parasite load

### Experimental Design



### Results



Acknowledgments: CMAPRIA/XTT and H2P, Ontario Sheep Farmers, and Food from Thought research program supported by the Canada First Research Excellence Fund

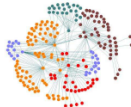


## Pigs of Instagram

A. M. Plesh\*, Z. Popaj\*, C. Dewey\*, J.C. Harding\*, T.L.O'Sullivan\*

### NETWORK ANALYSIS: UNDERSTANDING DISEASE OUTBREAKS

Network analysis was used to determine the connections between Ontario swine herds and service suppliers to understand the emergence of porcine epidemic diarrhea virus (PEDV) in 2014.



### WHAT WAS DONE AND WHAT WAS FOUND

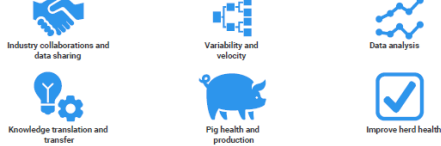
Animal movement  
Feed suppliers  
Big data  
Network analysis  
Outbreaks  
Swine industry

1 Feed Supplier  
47 Direct and indirect connections with herds and service suppliers

30% of cases herds traced via single feed supplier



### RESEARCH BENEFITS: CONTRIBUTIONS TO THE FUTURE



Industry collaborations and data sharing

Variability and velocity

Data analysis

Knowledge translation and transfer

Pig health and production

Improve herd health

### CONTACT FOR MORE DETAILS:

ONTARIO VETERINARY COLLEGE  
DEPARTMENT OF POPULATION MEDICINE

MSc, PhD candidate

Department of Population Medicine, University of Guelph  
Zoo-Animal Clinical Sciences, University of Saskatchewan

## Why You Should Carrot-All About Controlling Carrot Weevil

A. Stinson,  
D.B. Muldoon,  
M.R. McDonald,  
C. Scott-Dupree.



### CARROTS ARE HEALTHY, DELICIOUS, AND... UNDER ATTACK!

Up to 40% of carrot are damaged by pests, such as the carrot weevil



Damaged carrots cannot be sold by growers



### CARROT WEEVIL



Insecticide Resistance due to using one chemical for 30 years

Climate Change = Changing biology & earlier egg-laying

Luckily, we have one registered alternative: NOVALURON

### WE CAN FIX THIS!



### WHO ELSE KNOWS ABOUT THIS?

Everyone! Using KTT strategies:



EXCHANGE ideas at conferences across Canada



DISSEMINATION of findings through posters, presentations, & publications



COLLABORATE with multiple departments, grower groups, and OMAFRA specialists

Start a DIALOGUE with local growers on feasible solutions



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Icons made by Freepik from www.flaticon.com

ONTARIO

## working towards

## Breeding sheep resistant to climate change

D. Naylor\*, Z. Li\*, B.A. Mallard\*, A. Cánovas\*, C. Baes\*, N.A. Karrow\*

### Why we should

Climate change may cause dramatic temperature fluctuations = thermal stress

Thermal stress has negative impacts on the health and production of susceptible animals!



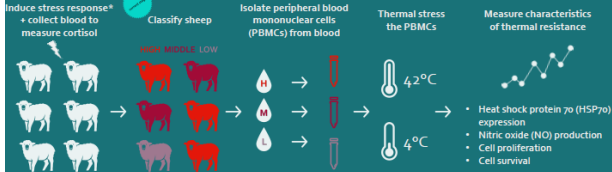
### The cortisol connection

Cortisol is a hormone released during times of stress to regulate metabolism and control inflammation!

Based on serum cortisol levels, sheep can be classified as a high, middle, or low stress responder!

We predict there is an optimal stress response for thermal resistance

### The research plan

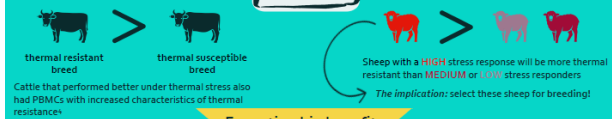


### Previous research

HSP70 NO cell proliferation cell survival characteristics of thermal resistance

### What we expect

HSP70 NO cell proliferation cell survival



### Expecting big benefits

In a changing climate, we will have to breed animals that are resistant to thermal stress

Animals will be healthier and more productive

- 1 improved animal welfare
- 2 improved production efficiency
- 3 reduced use of antimicrobials

sustainably feed more people!

\*Thanks to Canada Environment of Canada, Department of Animal Bioscience, University of Guelph, Canada, Canada, Department of Population Medicine, University of Saskatchewan, University of Guelph, Canada

Background: Understanding the role of climate change and breeding, health, welfare, and production. Understanding the role of climate change and breeding, health, welfare, and production. Understanding the role of climate change and breeding, health, welfare, and production. Understanding the role of climate change and breeding, health, welfare, and production.

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CANADA FIRST

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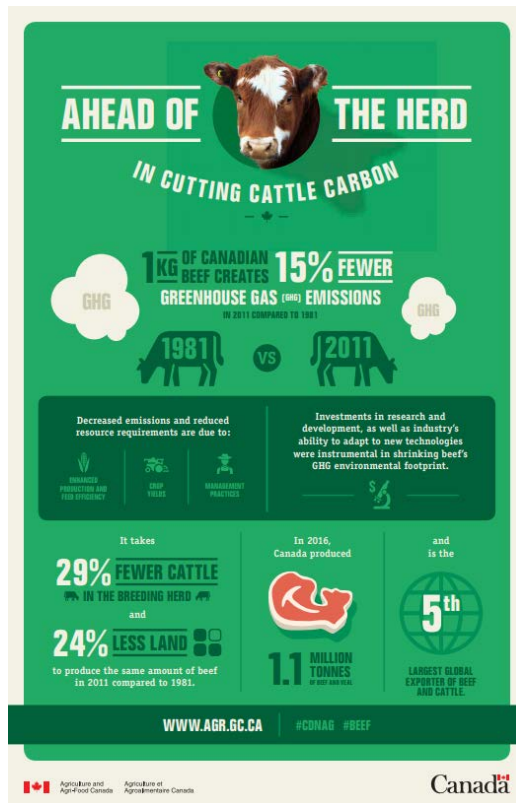
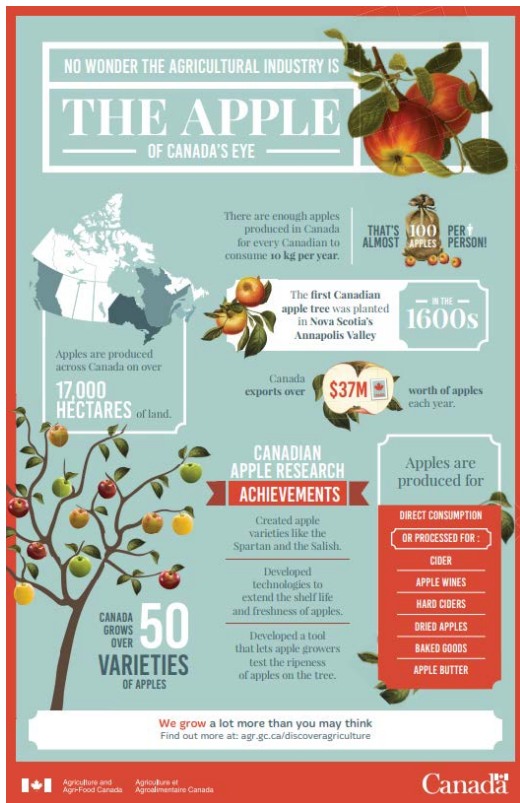
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# AAFC Infographics

<http://www.agr.gc.ca/eng/about-us/publications/discover-agriculture/infographics-agricultural-products-and-their-impacts/?id=1530198199592> Infographics



# Resources

## Infographic creation –

remember size requirement is 3'x4' (landscape orientation)

- Piktochart.com
- Canva.com
- Venngage.com
- Infogr.am
- PowerPoint

## Colours

- Flat colour ideas:  
<http://www.flatuicolorpicker.com/>
- Create colour combinations:  
<http://paletton.com>
- <https://color.adobe.com/create>
- Picking map colours:  
<http://colorbrewer2.org>

## Contrast

- <https://contrastchecker.com/>

# Resources

## Plain language

- Plain language editor - <http://www.hemingwayapp.com/>

## Free images

- <https://www.pexels.com/>
- <https://unsplash.com/>
- <https://pixabay.com/>

## Free icons

- <https://thenounproject.com/> – attribution depends on selection
- <http://aiconica.net/> – no attribution required
- <http://flaticons.net/> – no attribution required
- <https://www.flaticon.com/> – attribution required