Analysis of components of food production for sustainability in Canada

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Outline

TheoryMesh and food sustainability challenge

A bit background

Co-founders:

- Chris Bunio (mentor), Paul Westdal, Sephanie Westdal, Anne Kirk.
- Started 2019.
- Increasing transparency in the food supply chain.

Vision and Goals

1. Provide the platform to integrate data from first inputs to consumer purchase, creating a traceable, efficient and intelligent supply chain.
2. Certification.
3. Tracability.
4. Sustainability.

Outline

The problem proposed

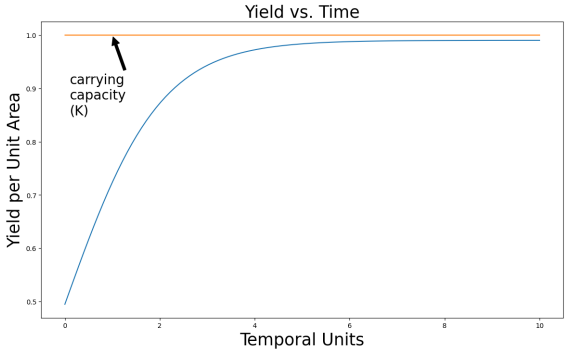
Relevance of the problem

Outline

Availability of information for producers

- Information is power!
- Currently, the relavent information resides in technical journals that is penetrable only for researchers and experts in the field.
- Needs to be available/intelligible to producers.
- The general sentiment conveyed by industry participants:
  - There needs to be a change in the way that information is disseminated.
  - It used to be that the when/where/how questions of crop production were passed by word of mouth: "Do this because it has always worked."
  - This is no longer tenable with the rapidly changing climate/environmental conditions.
  - Over the coming decades that will span a contemporary producer's career, they will invariably need to adjust their approaches.

What can be gleaned from the data?



- $K = K(x_1, x_2, \ldots, x_n)$, where no x_i is a temporal variable.

Factors Affecting K

References

DMci Strategies, D. McInnes (2003), Agri-food sustainability targets. A selected overview,

OECD Publishing, K. Parris et-al. (2010), Sustainable management of water resources in agriculture.