Food and Culture

INTRODUCTION TO COURSE

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Erik Chevrier

CultivAction Solidarity Cooperative

Concordia Food Coalition

Communal Lunch Project

Duff-Court Urban Farm

Lachine Mapping Project

Concordia Food Groups Research Project

How can postsecondary campuses act as hubs to cultivate food sovereign communities?

Building Food Sovereign Campuses: A Case Study of the Campus-Community Food Groups at Concordia University

What do You Know About Food?

What is the Difference Between a Fruit and Vegetable?

What is the Difference Between a Fruit and a Berry?

What is the Difference Between a Herb or Spice?

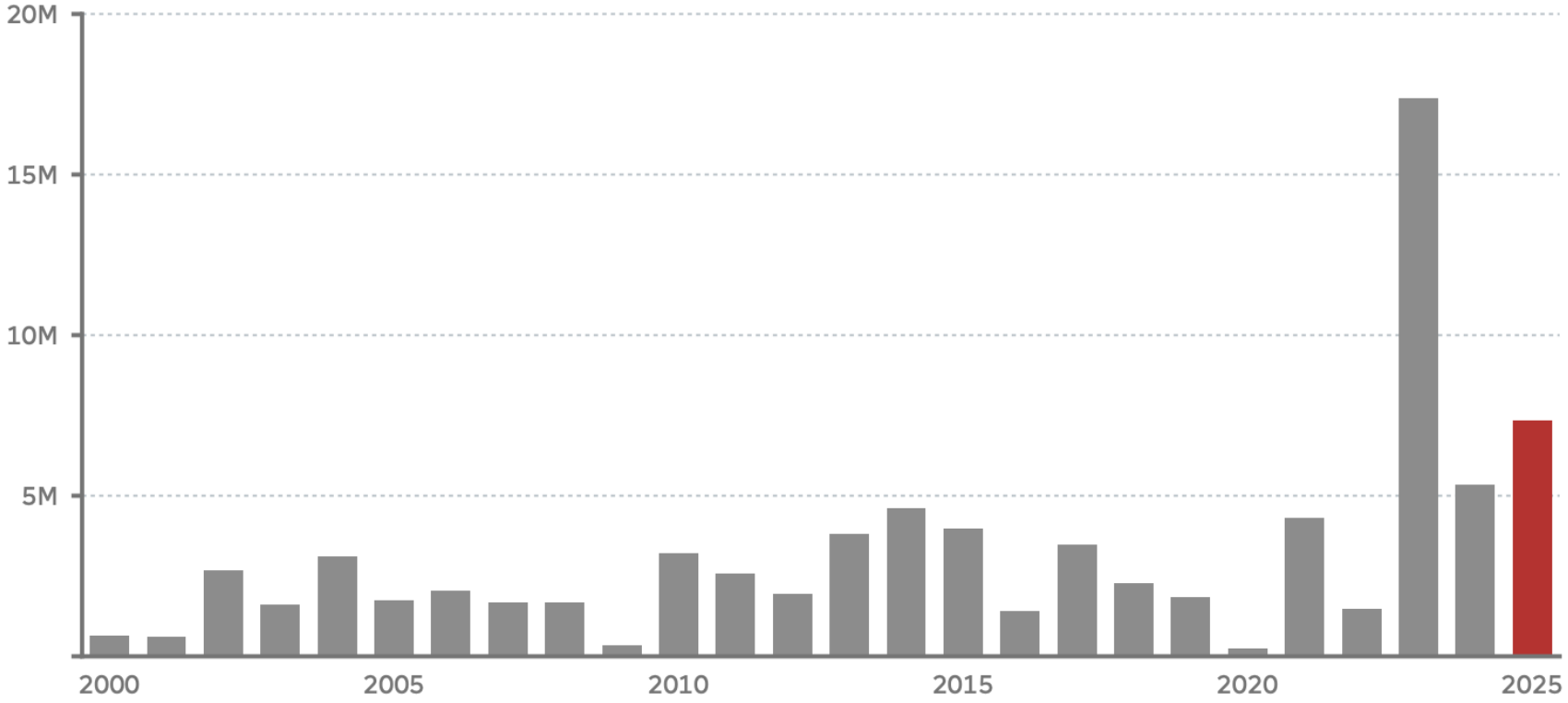
What do you Know About Global Food Systems?

The Global Food System is NOT Sustainable

low much has burned so far this year in Canada

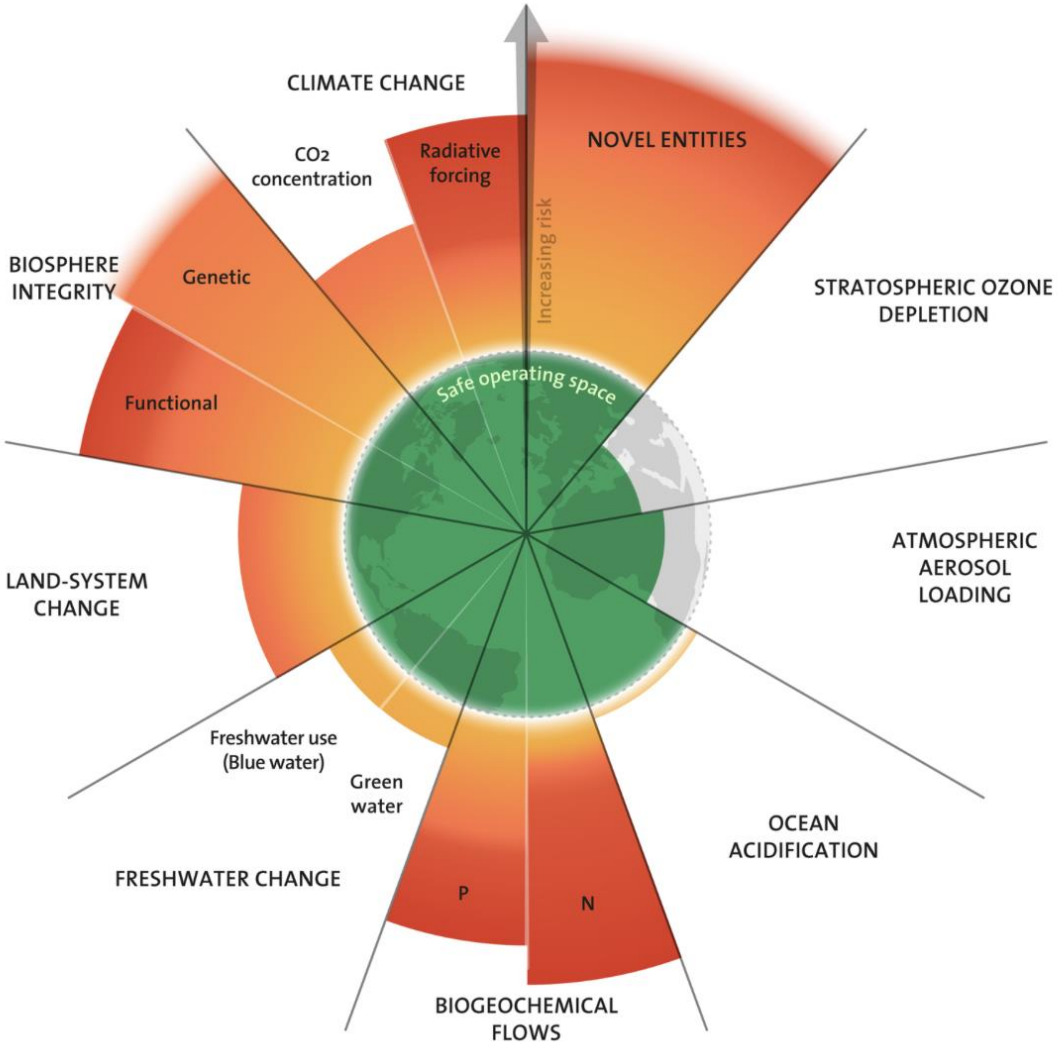
his year in Canada?

Number of hectares burned in wildfires by year



As of Aug. 10, 2025 at 5:00 p.m. ET

Source: Canadian Interagency Forest Fire Centre (CBC)



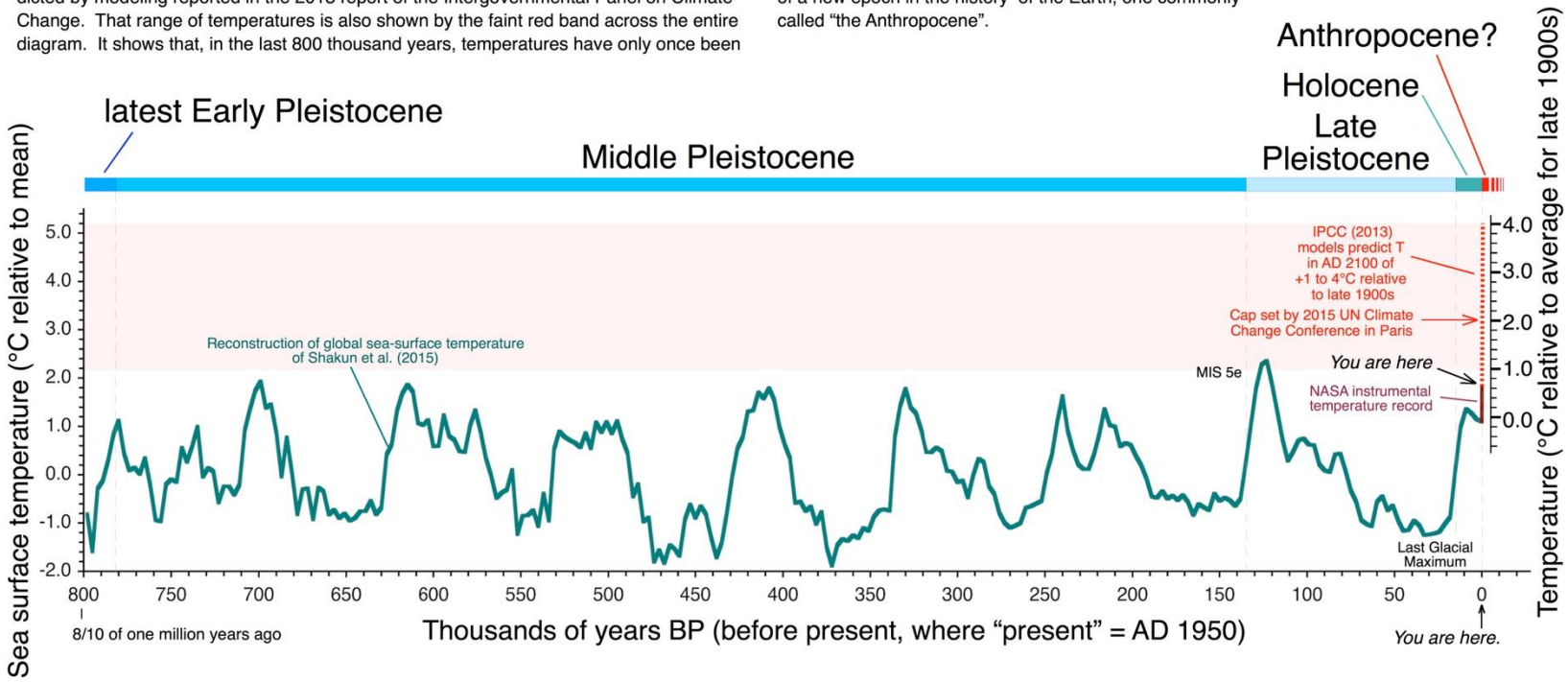
The 2025 update to the Planetary boundaries. Licensed under CC BY-NC-ND 3.0. Credit: "Azote for Stockholm Resilience Centre, based on analysis in Sakschewski and Caesar et al. 2025".

Temperatures from the Middle Pleistocene to the future

The diagram below shows in green a reconstruction of sea-surface temperature made from multiple marine sediment sequences, using the Mg/Ca ratios in the calcite ($CaCO_3$) of fossil planktic foraminifera. The record is plotted relative to its mean because temperatures at lower latitude locations were greater than those at high-latitude locations, but all show the same pattern and thus can be "stacked" to give one record of relative temperature.

In the rightmost part of the diagram, in the part representing the last 150 years, a dark red solid curve shows average Earth-surface temperature as derived from multiple thermometer records. A dashed bright red line shows the range of temperatures predicted by modeling reported in the 2013 report of the Intergovernmental Panel on Climate Change. That range of temperatures is also shown by the faint red band across the entire diagram. It shows that, in the last 800 thousand years, temperatures have only once been as high as those expected by AD 2100. That one time was during the last interglacial, the Eemian or MIS 5e, when sea level was at least six meters higher than present.

Another FQS page shows the last 22 thousand years in more detail; it is called "Temperatures from the Last Glacial Maximum to the future". Like this one, it shows that the rate of temperature increase in the last 150 years and the temperatures expected in the coming century are strikingly unlike those of the Holocene and Pleistocene. The changes that have happened and are expected are so great that they merit great concern from a societal standpoint and, from a geological standpoint, merit recognition of a new epoch in the history of the Earth, one commonly called "the Anthropocene".



Sources, from left to right:

Shakun, J. D., Lea, D.W., Lisiecki, L.E., and Raymo, M.E., 2015, An 800-kyr record of global surface ocean $\delta^{18}O$ and implications for ice volume-temperature coupling. Earth and Planetary Science Letters 426, 58-68.

U.S. National Aeronautics and Space Administration (NASA) GISS Surface Temperature Analysis at data.giss.nasa.gov/gistemp/graphs_v3/ accessed 20 December 2015.

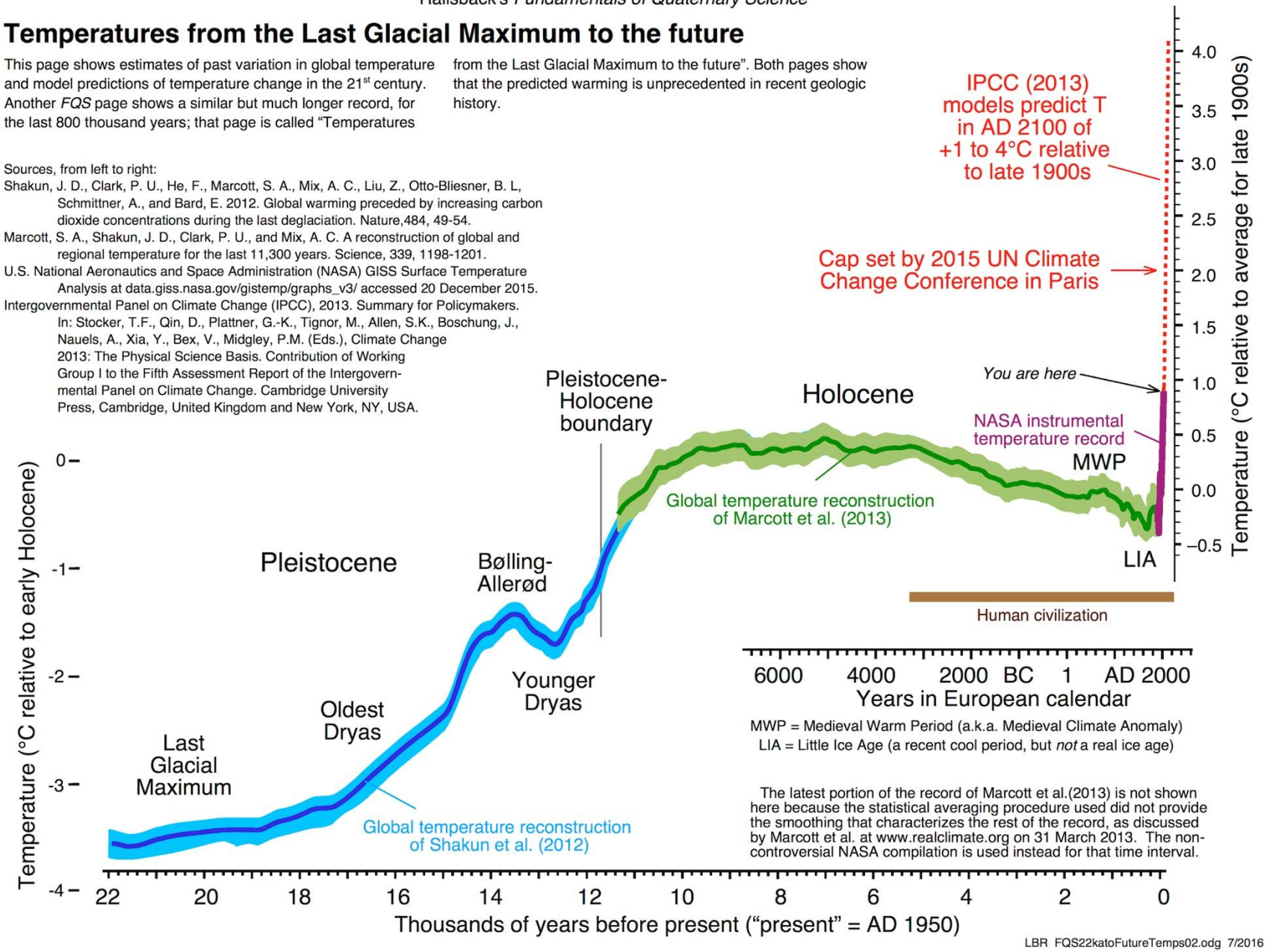
Intergovernmental Panel on Climate Change (IPCC), 2013. Summary for Policymakers. In: Stocker, T.F., Qin, D., Plattner, G.-K., Tignor, M., Allen, S.K., Boschung, J., Nauels, A., Xia, Y., Bex, V., Midgley, P.M. (Eds.), Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

LBR FQS800katoFutureTemps01.odg 12/2015

Temperatures from the Last Glacial Maximum to the future

This page shows estimates of past variation in global temperature and model predictions of temperature change in the 21st century. Another *FQS* page shows a similar but much longer record, for the last 800 thousand years; that page is called "Temperatures from the Last Glacial Maximum to the future". Both pages show that the predicted warming is unprecedented in recent geologic history.

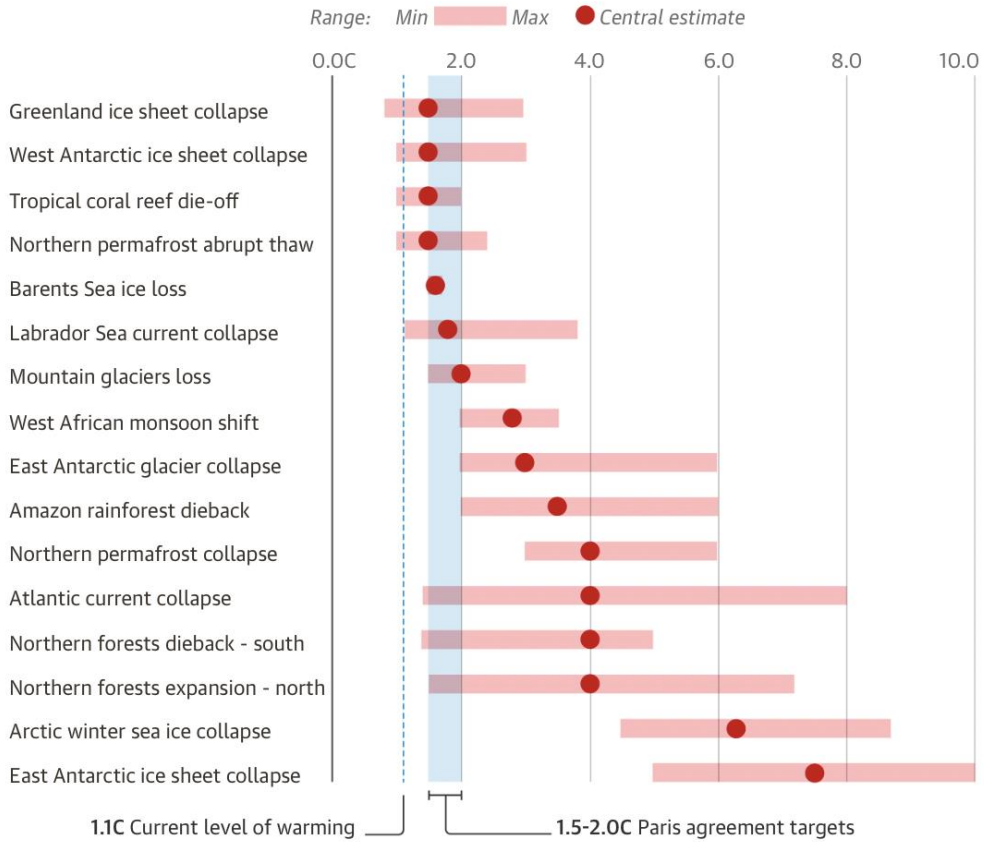
Sources, from left to right:
Shakun, J. D., Clark, P. U., He, F., Marcott, S. A., Mix, A. C., Liu, Z., Otto-Bliesner, B. L, Schmittner, A., and Bard, E. 2012. Global warming preceded by increasing carbon dioxide concentrations during the last deglaciation. Nature,484, 49-54.
Marcott, S. A., Shakun, J. D., Clark, P. U., and Mix, A. C. A reconstruction of global and regional temperature for the last 11,300 years. Science, 339, 1198-1201.
U.S. National Aeronautics and Space Administration (NASA) GISS Surface Temperature Analysis at data.giss.nasa.gov/gistemp/graphs_v3/ accessed 20 December 2015.
Intergovernmental Panel on Climate Change (IPCC), 2013. Summary for Policymakers. In: Stocker, T.F., Qin, D., Plattner, G.-K., Tignor, M., Allen, S.K., Boschung, J., Nauels, A., Xia, Y., Bex, V., Midgley, P.M. (Eds.), Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.



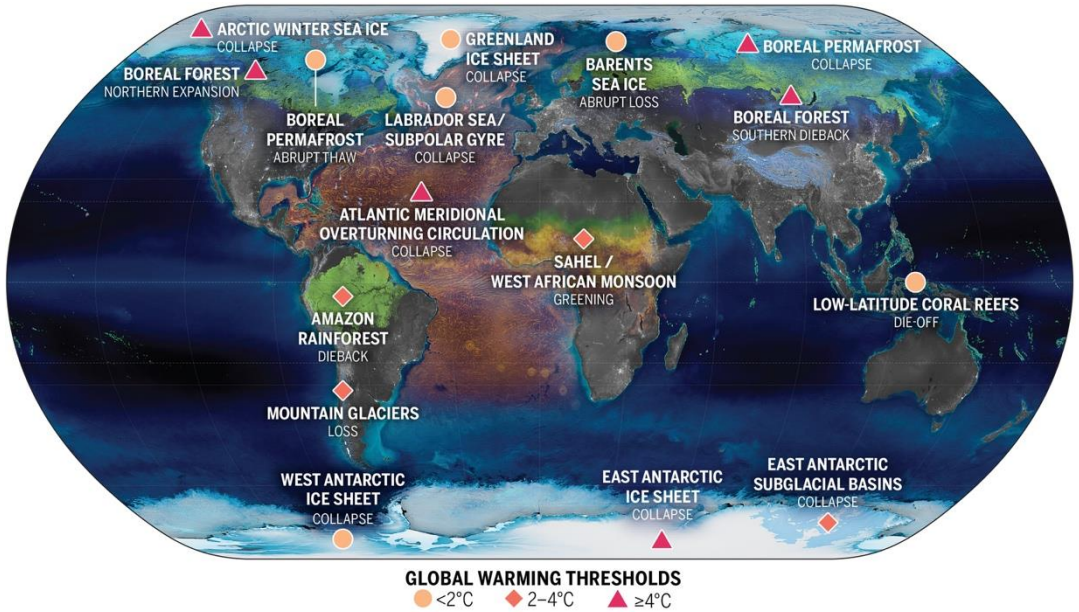
LBR FQS22katoFutureTemps02.odg 7/2016

The risk of climate tipping points is rising rapidly as the world heats up

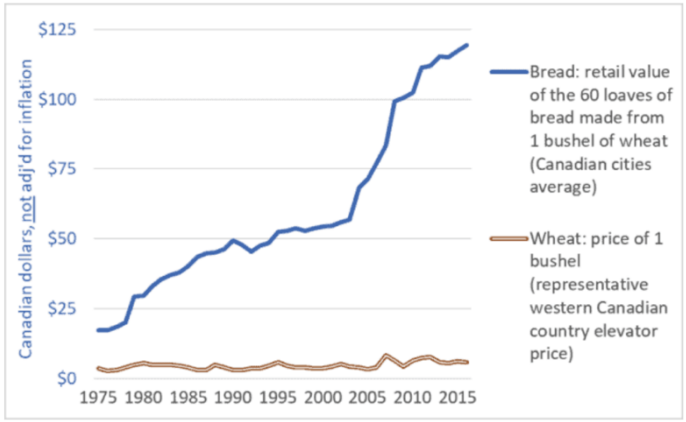
Estimated range of global heating needed to pass tipping point temperature



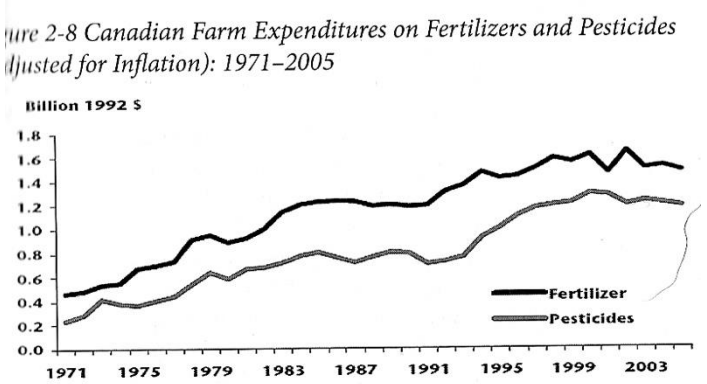
Guardian graphic. Source: Armstrong McKay et al, Science, 2022. Note: Current global heating temperature rise 1.1C Paris agreement targets 1.5-2.0C



THE GLOBAL FOOD SYSTEM IS ALSO NOT SOCIALLY JUST, NOR ECONOMICALLY VIABLE

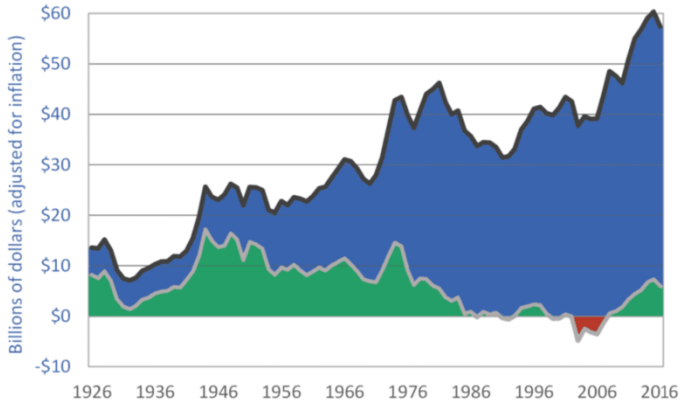


Canadian retail store bread price and farm-gate wheat price, 1975-2016



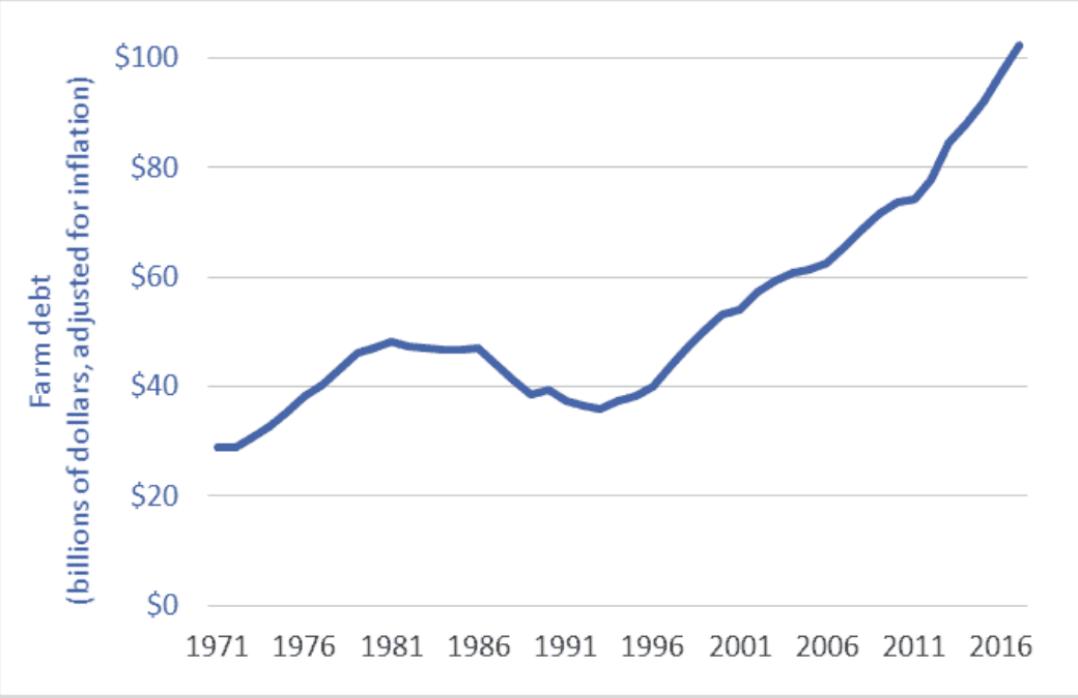
ure 2-8 Canadian Farm Expenditures on Fertilizers and Pesticides djusted for Inflation): 1971–2005

urces: Agriculture and Agri-Food Canada, *An Overview of the Canadian riculture and Agri-Food System: 2007*, p. 124.

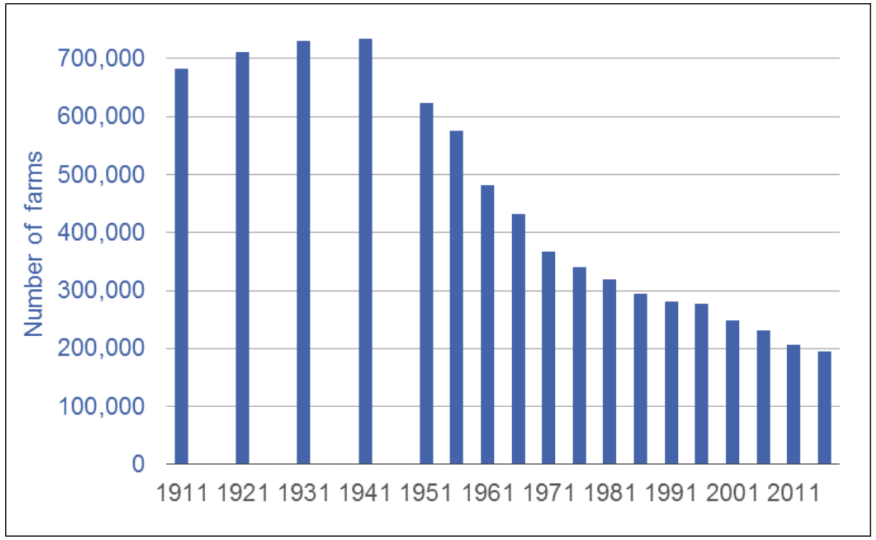


Canadian net farm income and gross revenue, inflation adjusted, net of government payments, 1926–2016.

The Global Food System is Not Economically Viable



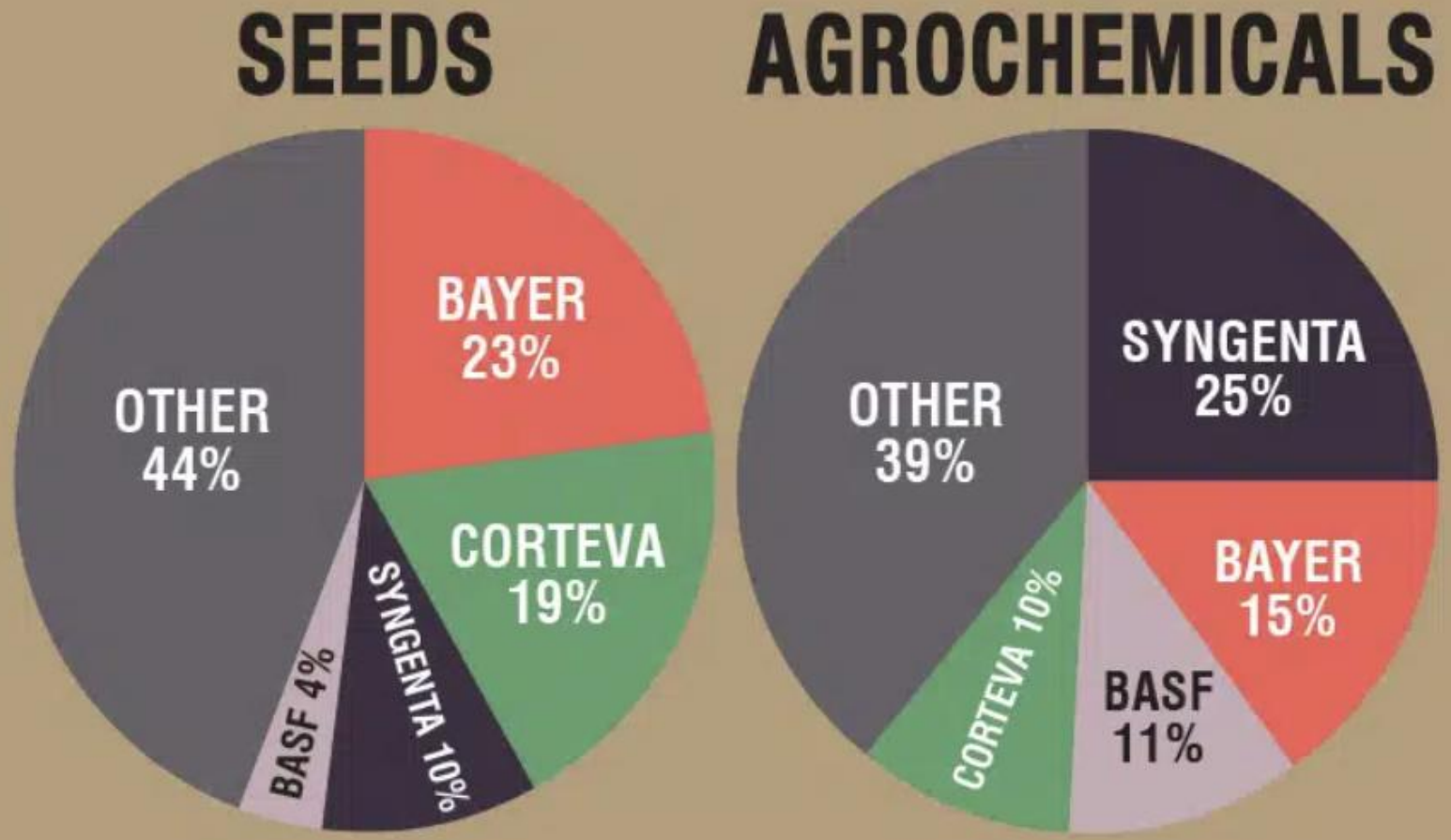
Losing the farm(s): Census data on the number of farms in Canada



Number of farms in Canada, Census years, 1911 to 2016

The Global Food System is Not Economically Viable

CORPORATE CONTROL IN GLOBAL SEEDS+ AGROCHEMICALS



The Global Food System Becoming Increasingly Concentrated

World War II: IG Farben (Bayer, BASF, Zyklon B)
Nuremberg War Crimes Trial Documents & Films

Heinrich Himmler (second left) visits the IG

The Global Food System is Rooted in War, Death and Destruction

Table 2.1

Hourly Real Wage among Full-Time Workers (2015$)

	Average	10th Percentile	50th	90th	99th	99.9th	$GAP 99.9th -50th
1980	25.73	11.64	23.37	41.50	71.93	150.99	127.61
1985	25.15	10.23	22.97	41.22	71.19	156.2	133.23
1990	25.64	10.16	23.29	42.24	75.69	170.47	147.18
1995	25.21	9.64	22.65	41.69	76.19	190.52	167.87
2000	26.52	9.79	22.97	44.03	91.87	265.53	242.56
2005	28.31	10.31	23.67	46.64	102.64	372.16	348.49
2010	31.00	11.40	26.07	52.06	112.04	340.52	314.45
Compound annual growth rates							
1980-2010	0.62%	-0.07%	0.36%	0.76%	1.48%	2.71%	3.01%
1980-2000	0.15%	-0.87%	-0.09%	0.30%	1.22%	2.82%	3.21%
2000-2010	1.56%	1.52%	1.27%	1.68%	1.98%	2.49%	4.81%

Source: Duclos and Pellerin (2016-Table 3) plus author's calculations

Figure 2.1

Real Average Canadian Hourly Wage in 2015 dollars 1914-2000

CANSIM ii V l603501 ; Urquhart et al "Historical Statistics of Canada"

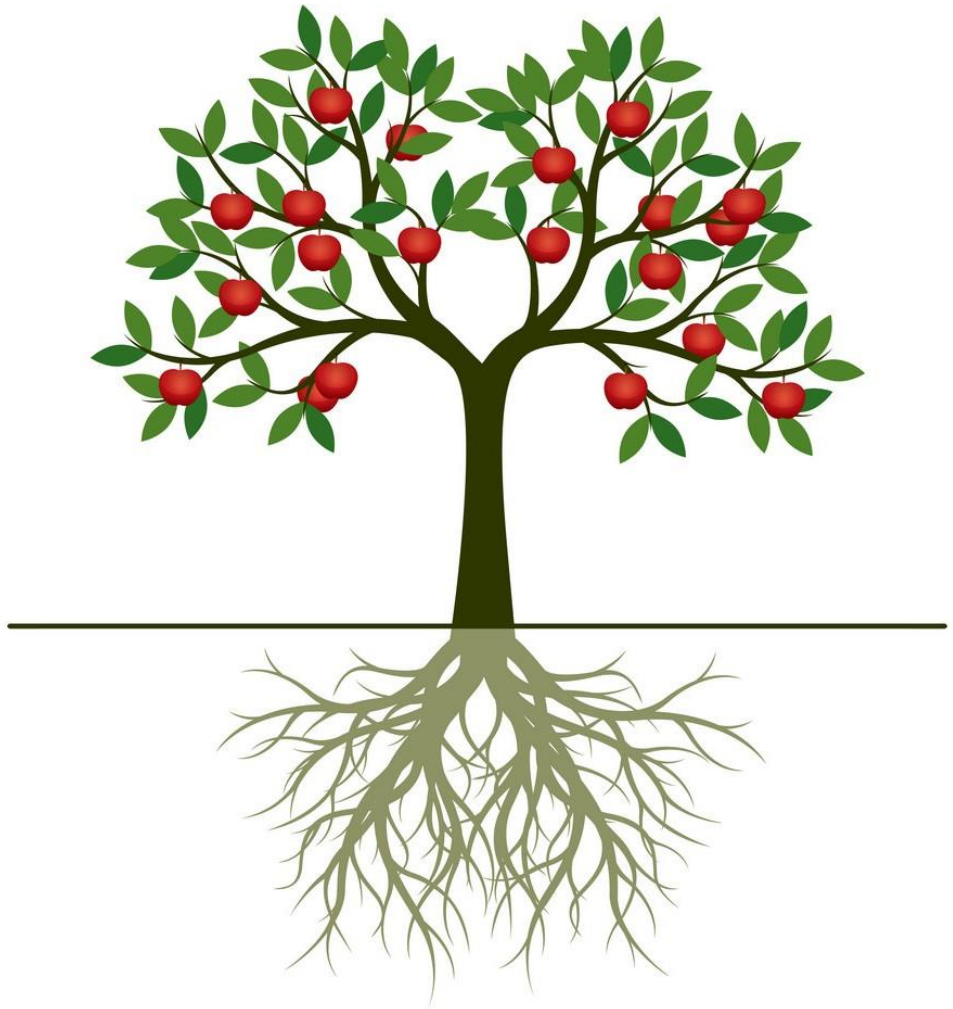
Sources: Statistics Canada, CANSIM ii V I603501 and Urquhart et al., "Historical Statistics of Canada."

CONNECTING TO THE BIGGER PICTURE

Harms of the Global Food System

Food insecurity – billions of people without access to healthy food!
Pesticides kill pollinators – fruits need bees!
Food as a weapon of war – people in Gaza are starving!
Lack of food sovereignty – peasants and farmers are being affected by trade agreements and food dumping!
GMOs and privatization – restricted access!
Cost on farmers – family farms are not sustainable!
Reduction of biodiversity – we are destroying nature!
Unwanted genetics spreading onto non-GMO farms – lawsuits!
Loss of Indigenous farming methods – on stolen land!
Soil arability – we are killing our soil!
Creating dead zones in waterways – we are polluting our water!
Corporate concentration of agribusinesses – former war companies are now food chemical companies!
Health – our food contains toxins!
Carbon intensive practices – agroecology and permaculture methods can sequester carbons!
Structural racism, colonialism and patriarchy – glaring systemic issues!
Rising cost of seed and chemicals – we don't need to buy seeds!
Research funding being directed to GMOs instead of traditional breeding methods – 'science' is not only about GMOs!
Pest and weed resistance to Bt crops and glyphosate!

There are so many more issues!

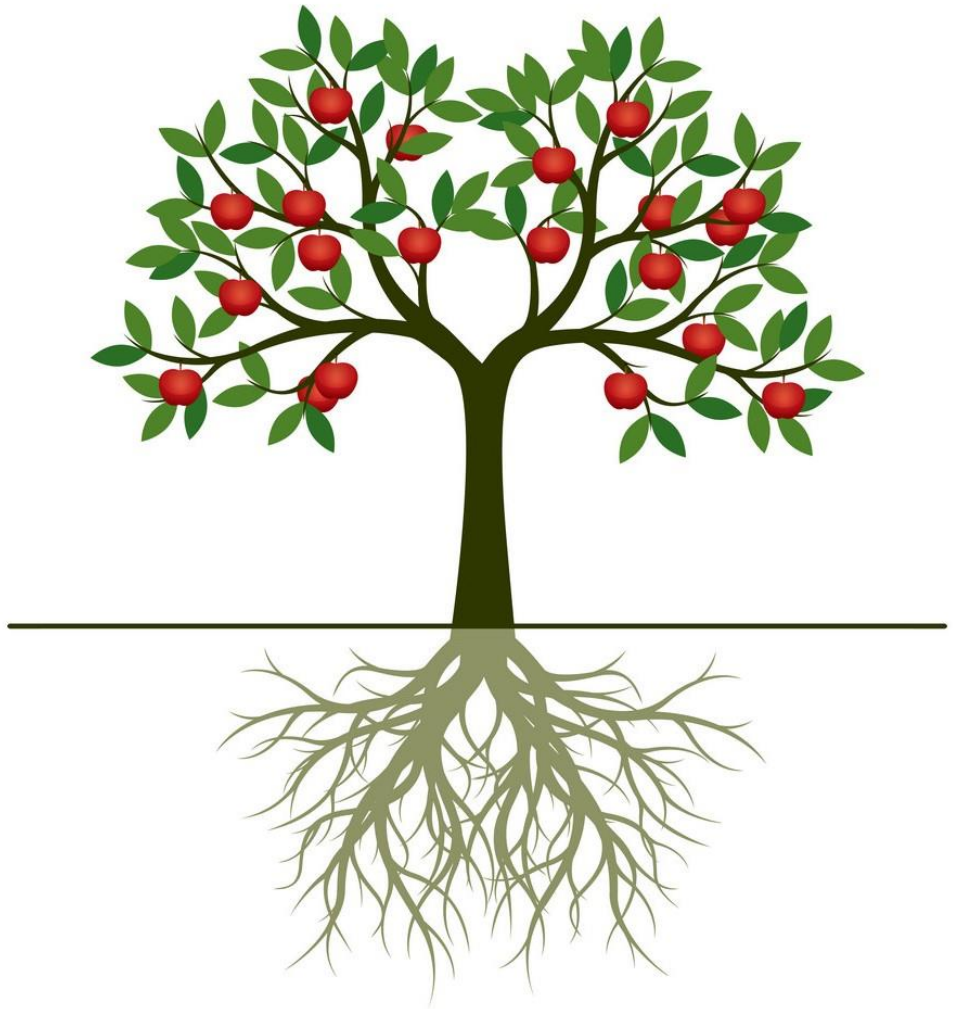


What Can We Do to Fix these Problems?

We Need To Transform Our Food System

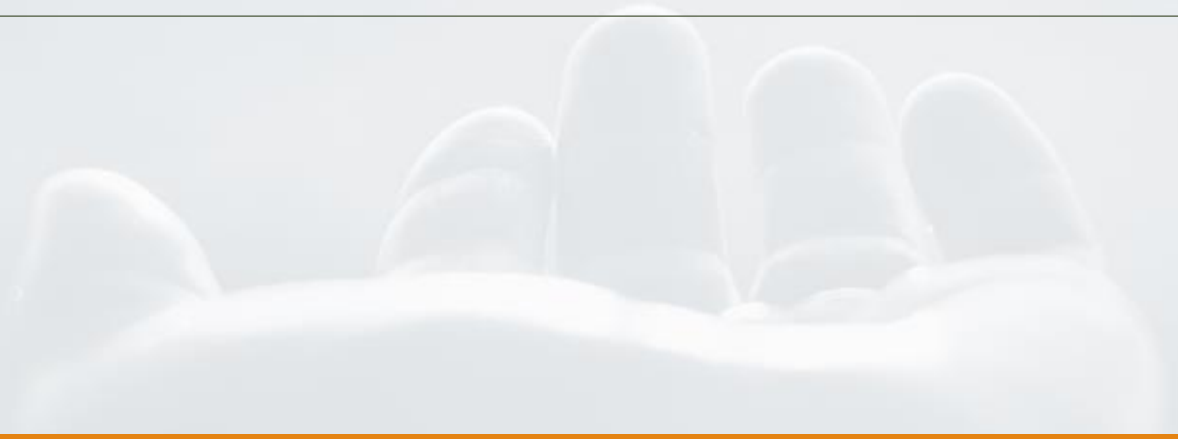
Calls to “fix a broken food system” assume that the capitalist food system used to work well. This assumption ignores the food systems long, racialized history of mistreatment of people of colour. The food system is unjust and unsustainable, but it is not broken. It functions precisely as the capitalist food system has always worked, concentrating power in the hands of the privileged minority and passing off the social and environmental “externalities” disproportionately to racially stigmatized groups.

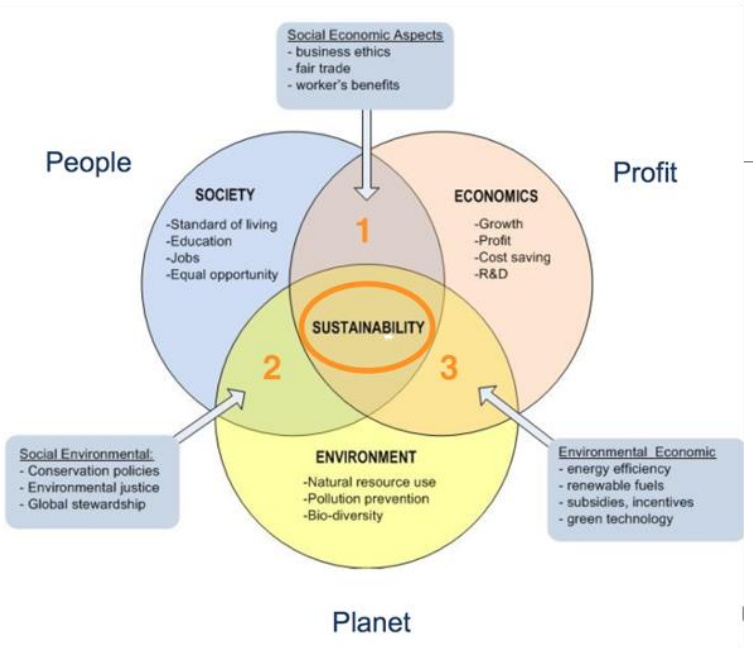
Holt-Gimenez, E. (2017) A Foodie’s Guide to Capitalism: Understanding the Political Economy of What We Eat, Monthly Review Press, New York.

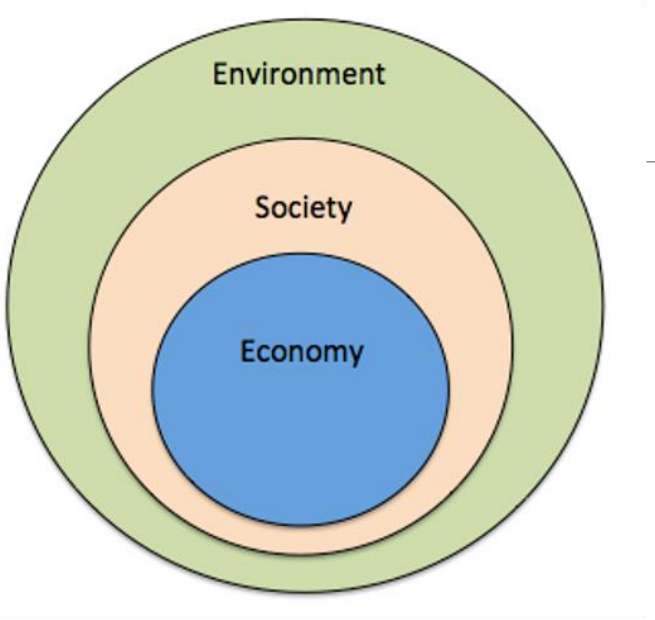


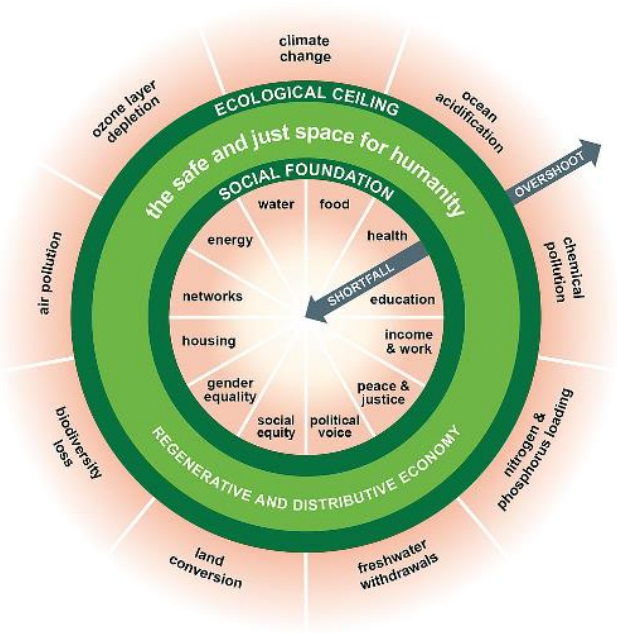
What Can We Do to Fix these Problems?

There is Hope!







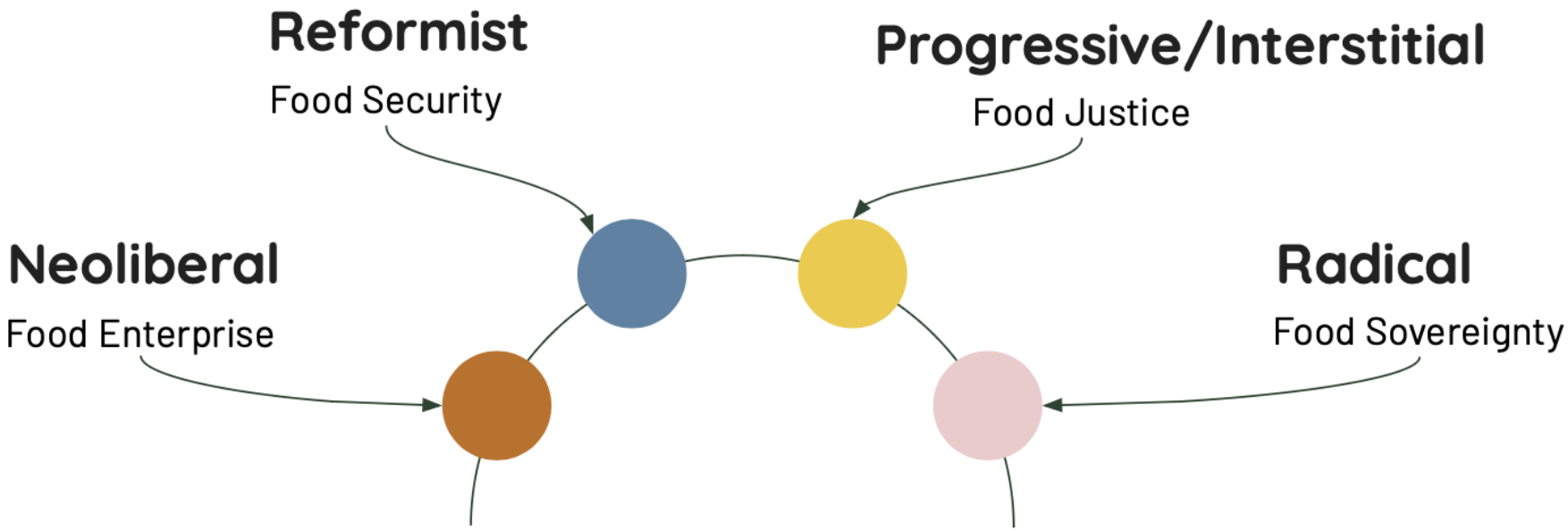


From Weak Sustainability to Food Sovereignty

Figure 1. Food System Sectors

Food System Change

CORPORATE FOOD REGIME **FOOD MOVEMENTS**

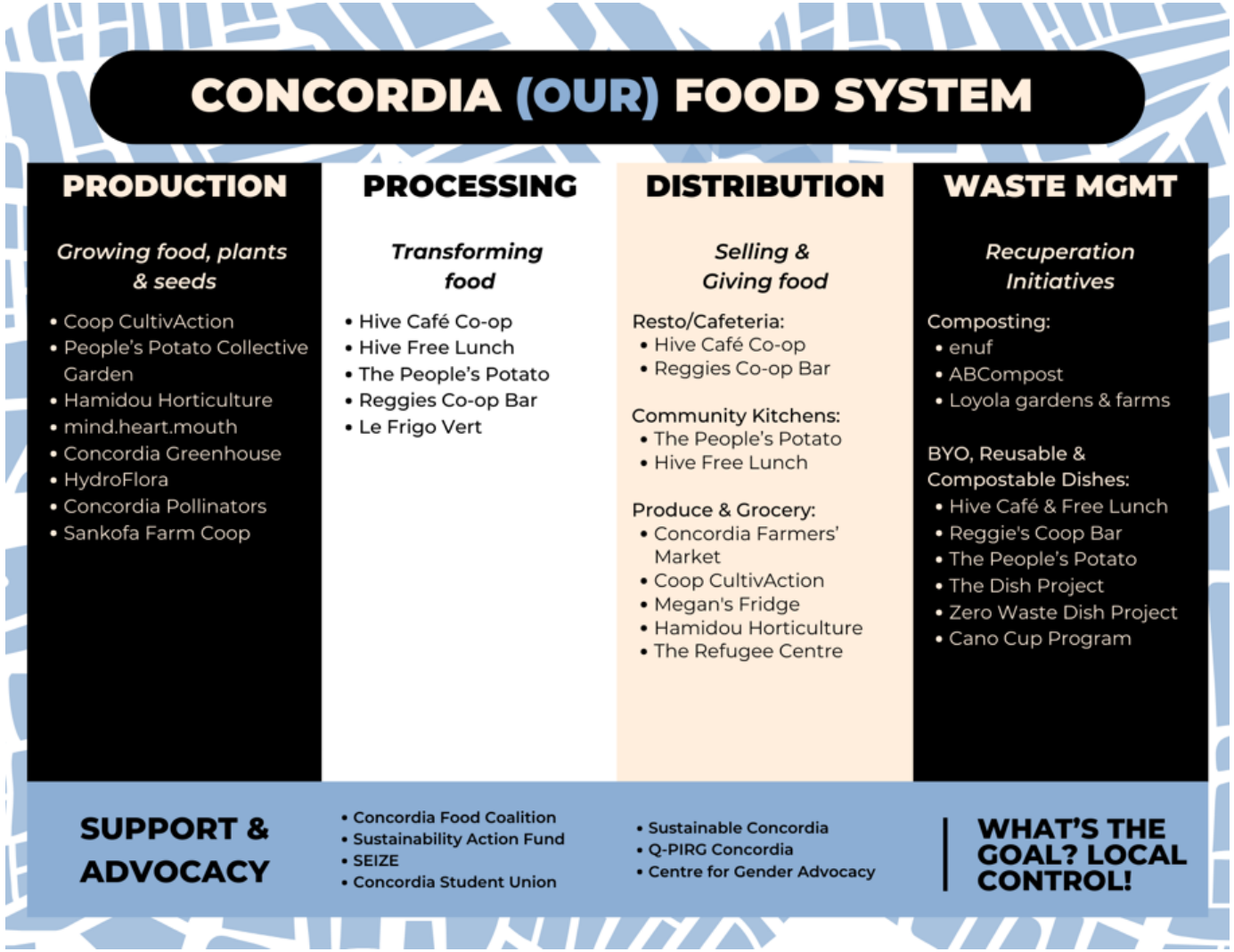


Holt-Gimenez, E. (2017) A Foodie's Guide to Capitalism: Understanding the Political Economy of What We Eat, Monthly Review Press, New York.

Gibson Graham – Take back the Economy

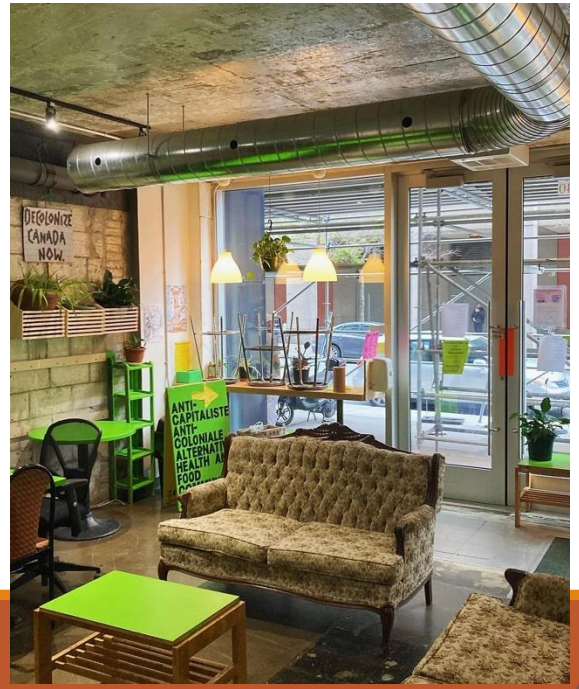
Gibson-Graham, J.K., Cameron, J., Healy, S. (2013) Take Back the Economy: An Ethical Guide for Transforming Communities, University of Minnesota Press

LABOR	TRANSACTIONS	PROPERTY	ENTERPRISE	FINANCE
Wage	Market	Private	Capitalist	Mainstream Markets
ALTERNATIVE PAID Self-employed Reciprocal labor In-kind Work for welfare	ALTERNATIVE MARKET Fair trade Alternative currencies Underground market Barter	ALTERNATIVE PRIVATE State-managed assets Customary (clan) land Community land trusts Indigenous knowledge (Intellectual Property)	ALTERNATIVE CAPITALIST State owned Environmentally responsible Socially responsible Non-profit	ALTERNATIVE MARKET Cooperative Banks Credit unions Community-based financial institutions Micro-finance
UNPAID Housework Volunteer Self-provisioning Slave labor	NON-MARKET Household sharing Gift giving Hunting, fishing, gathering Theft, piracy, poaching	OPEN ACCESS Atmosphere International Waters Open source IP Outer Space	NON-CAPITALIST Worker cooperatives Sole proprietorships Community enterprise Feudal Slave	NON-MARKET Sweat equity Family lending Donations Interest-free loans



Concordia Campus-Community Food System

Le Frigo Vert



The People’s Potato

The Hive

coalition

The Concordia Greenhouse?

The Concordia Food Coalition

Our Vision

Food sovereign communities at Concordia University and beyond.

Our Mission

The CFC brings together students, faculty, staff and community members to co-create campus-community food sovereignty. Through education, incubation and innovation, we collaborate to build sustainable, accessible and democratic local food systems.

Our Values

Community, Cooperation, Inclusion, Solidarity, Innovation and Regenerative Practices.

The Garden Groups

SANKOFA FARMING CO-OP

CultivAction Solidarity Cooperative

Mission of CultivAction Solidarity Cooperative

To facilitate transitions towards a ***food sovereign campus-community*** *by practising* ***urban agroecology*** *to* ***nourish local populations with hyper-local, organic produce, cultivate urban green spaces*** *and to support* ***sustainable food production at Concordia and beyond****.*

We offer urban agriculture workshops and volunteer learning opportunities to empower people with the knowledge to grow their own food and participate in a movement to cultivate a more resilient, just and food secure future. ***We see our work as a political act and look to create networks of reciprocity and connection with other groups who share a deep commitment to social justice and food sovereignty.***

Vision of CultivAction Solidarity Cooperative

Coop CultivAction envisions a biodiverse, and abundant campus-community foodscape (healthy soil, animals, insects, nutritious food, beneficial plants, etc.) that facilitates hands on community education and engagement and builds social and economic justice.

Structure of CultivAction Solidarity Cooperative

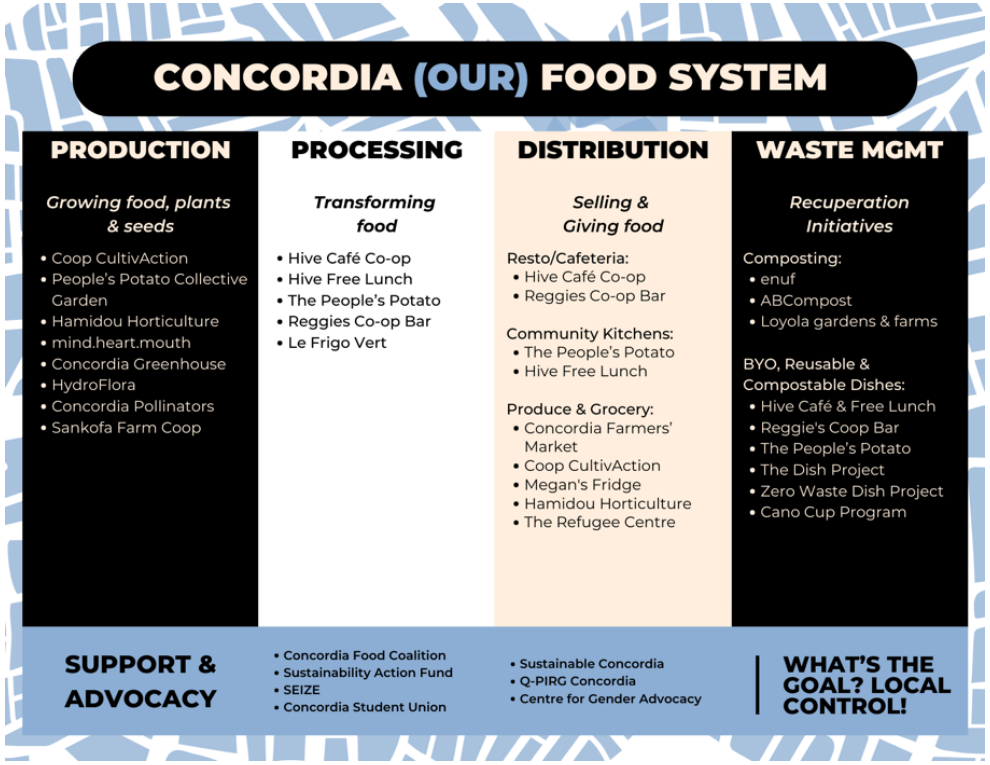
Solidarity Cooperative – Multistakeholder

Board Composition

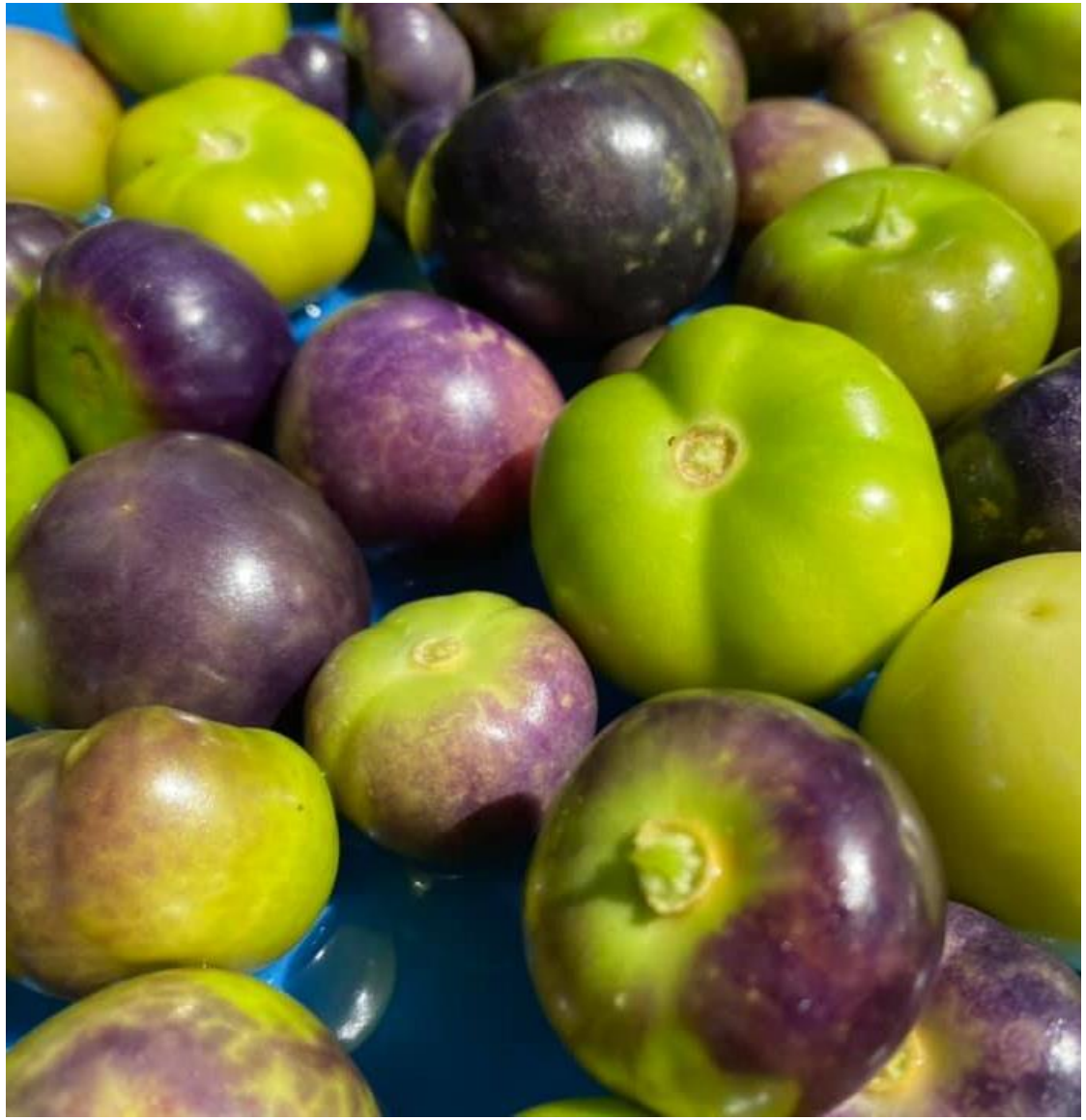
- *Worker members - 6*
- *User members - 4*
- *Support member - 1*

Diverse Economic Model

- *Non-profit cooperative*
- Pay-what-you-can markets at Concordia
- Farmers markets in the community
- Donation (Organizations and Volunteers)
- Wholesale
- Direct sale (CSA/You Pick)
- Fee Levy
- Paid and volunteer labour



How CultivAction Solidarity Cooperatives Came to Be

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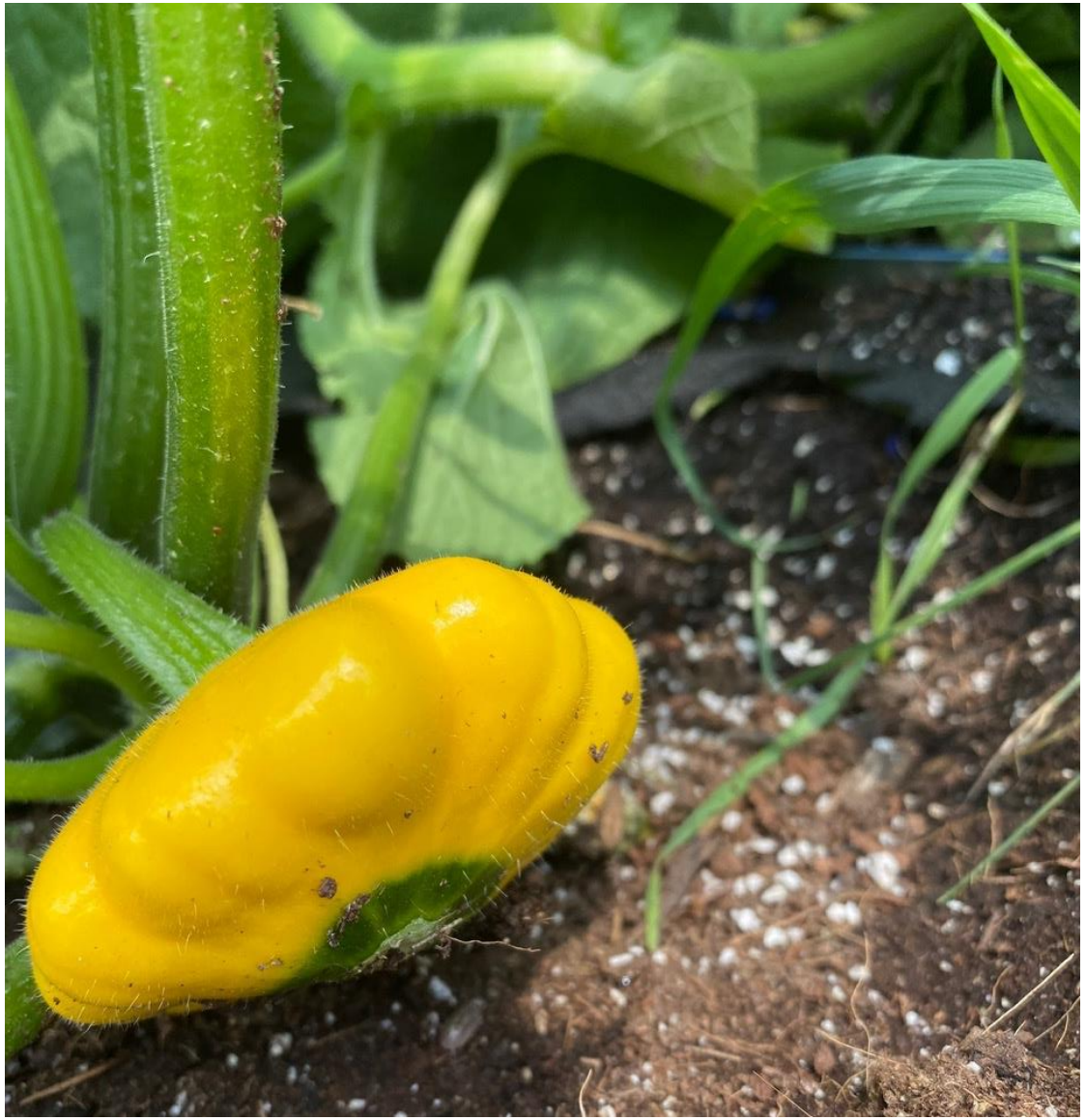


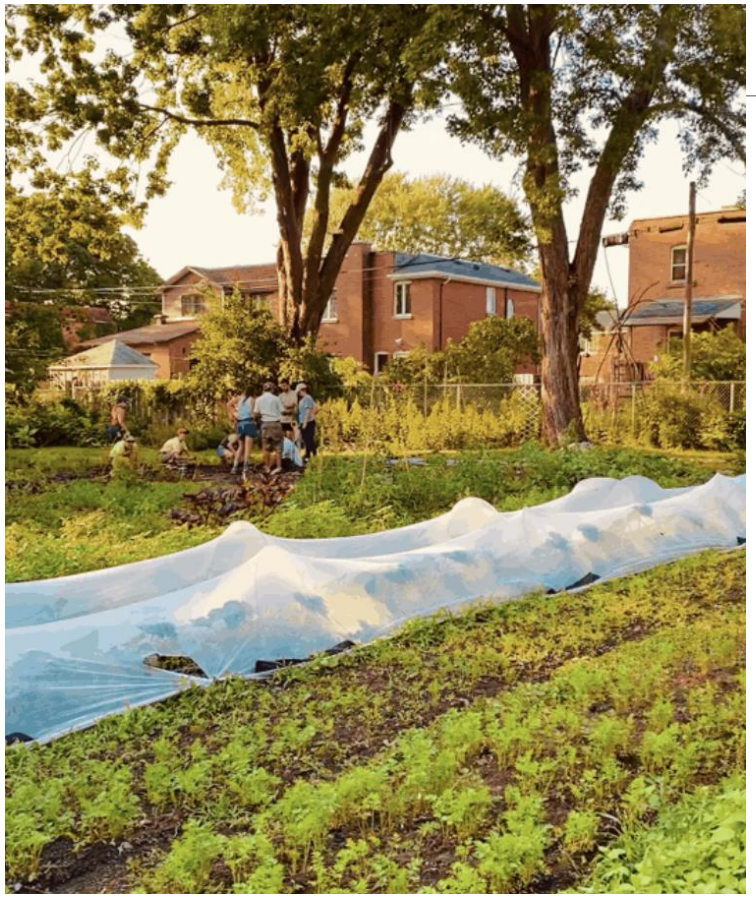

LES
P'tits
Marchés
CONCOURS
CONTEST

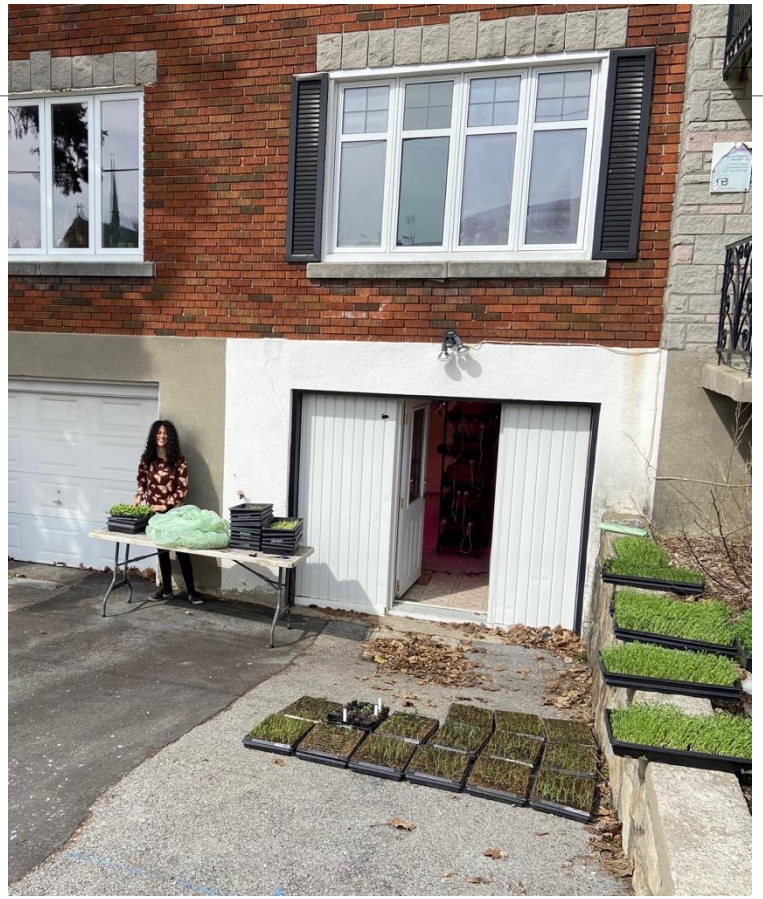

LES

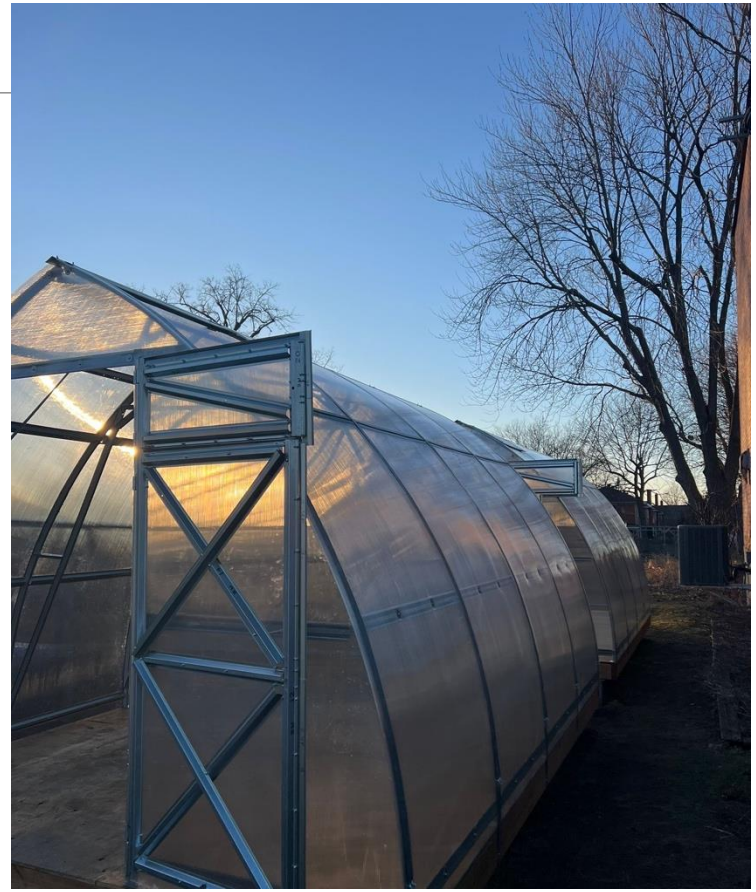
Loyola Farm

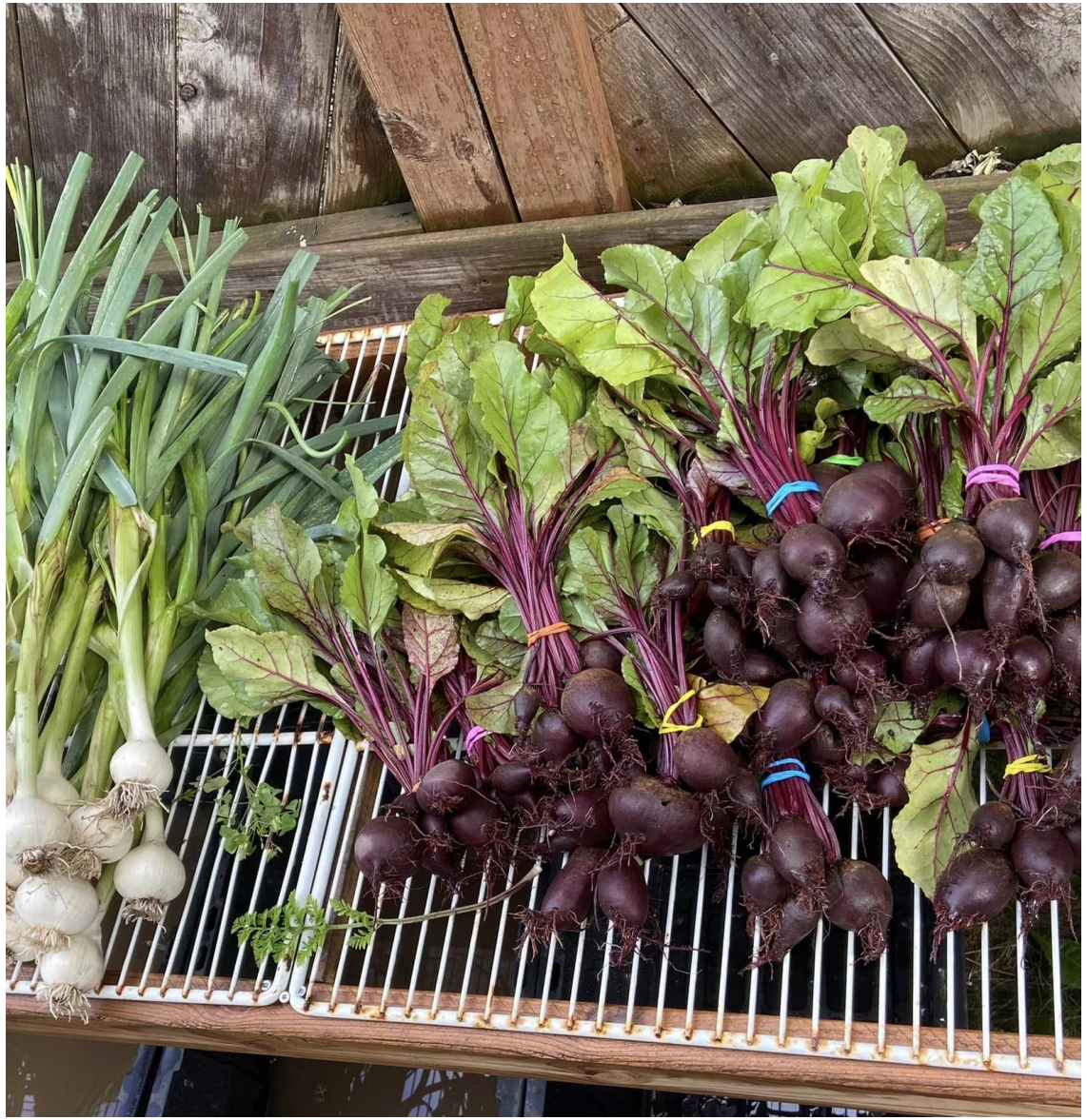

INTERCROPPING
Is the practice of planting two or more crops in the same field side by side in the same or overlapping season.
COMPANION PLANTING is grouping certain plants that protect each other by attracting pollinators, repelling pests, and increasing productivity.
ROW/STRIP INTERCROPPING: Different crops support different parts of the soil microbiome, so row intercropping is a strategy we use to support all parts of the complex web of soil life.
SQUASH
CALENDULA
KALE
cultivaction

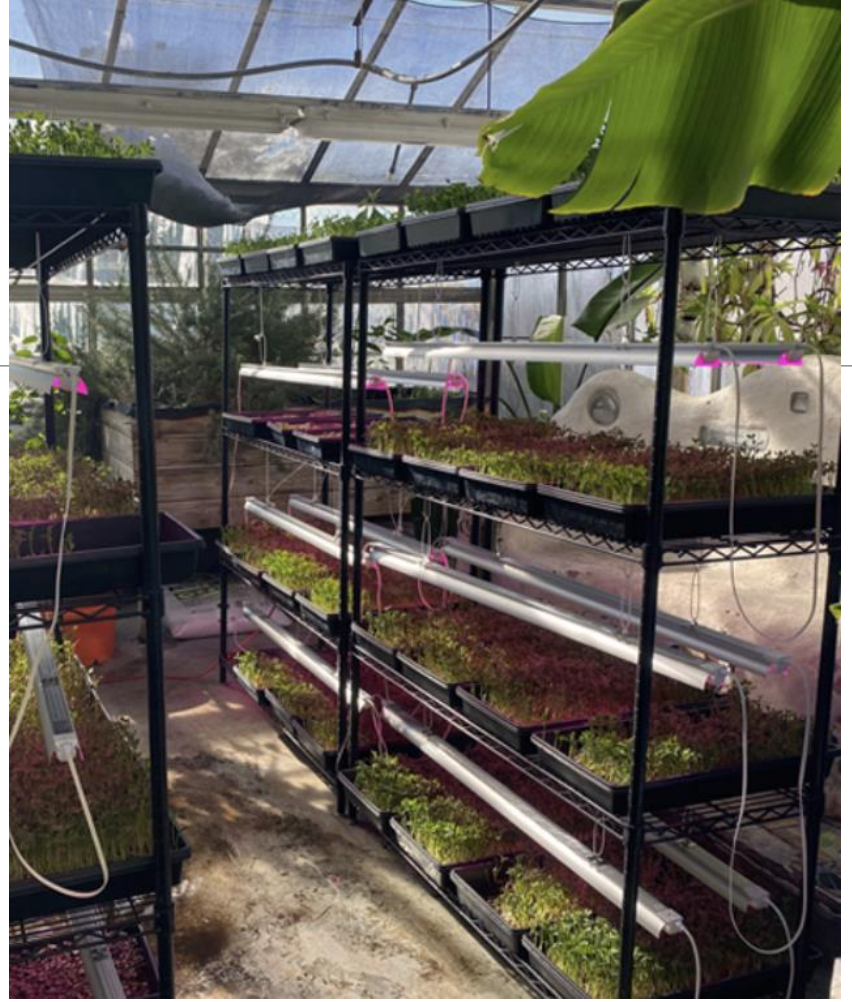

UCT





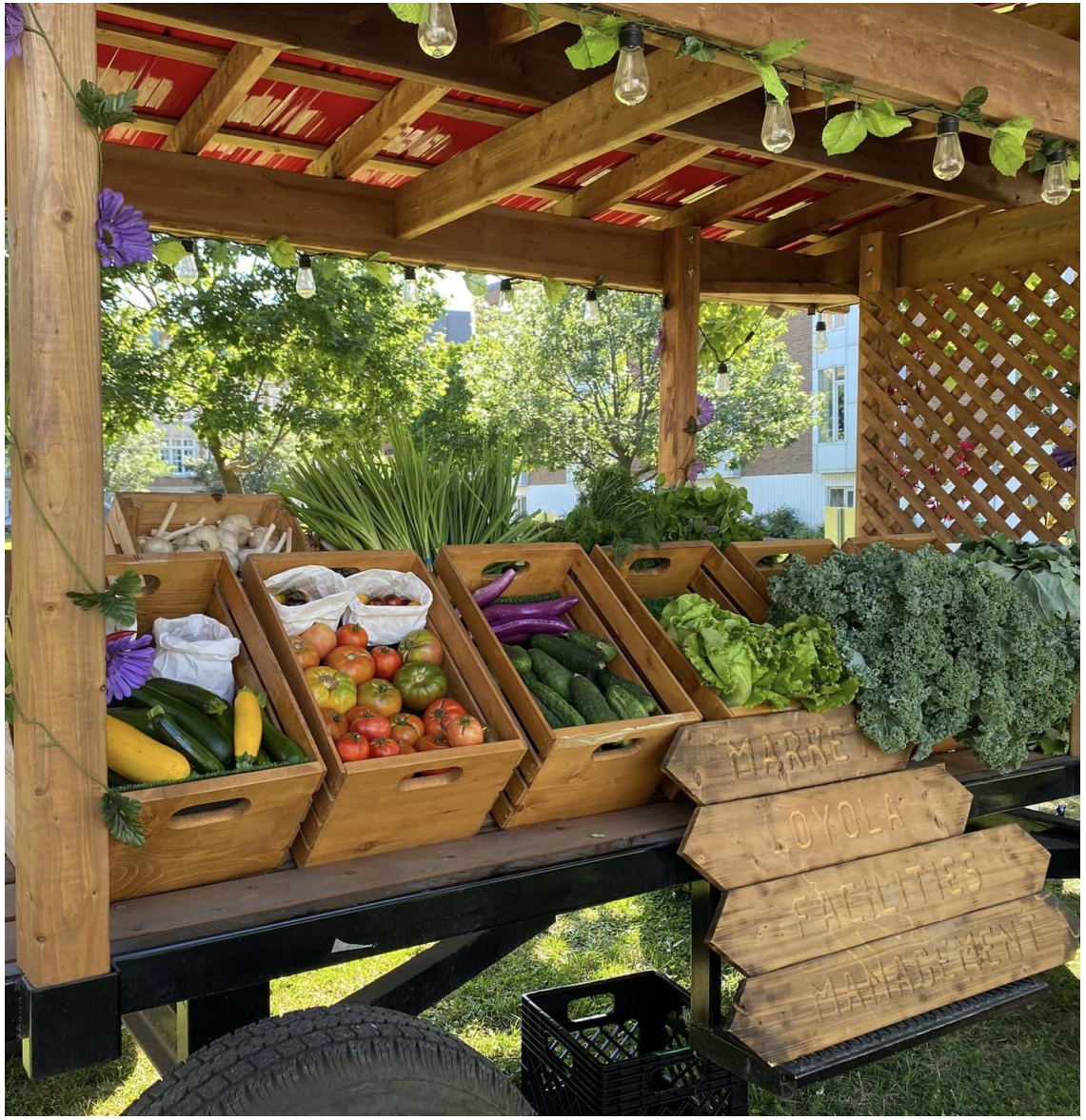







FREE PALESTINE


ESPACE 4 TH SPACE


MARKET
LOYOLA
FACILITIES
MANAGEMENT

Senneville Farm


Tyvek
Tyvek


WARNING!


Full Bush
WINNIPEG MINOR
BASKETBALL ASSOCIE

1 - What are your names?
2 - What is something interesting about you?
3 - What do you expect to get out of this course?
4 - Why did you take this course?
5 - What is your level of experience with topics related to food and culture on a scale of 1 to 5?
- How would you rate your knowledge of :
- Food systems?
- Theories of transformative sustainability?
- Theories of food justice, food sovereignty, and food security?

6 – What is your level of experience with food practices?
- Do you cook regularly?
- Do you bake regularly?
- Do you farm or garden?
- Do you compost food?
- Do you purchase from CSAs or farmers markets?
- Do you work in a food establishment?

7 – What is your interest level in topics related to food studies?
What specific topics are you interested you most?
What topics interest you least?

8 – What do you plan to do with the food studies knowledge after the course ends?

Plant a Seed Activity

1 – Use seed starting earth – loose, small amounts of N-P-K, mycorrhizal fungi, and micronutrients.

2 – Plant a few basil seeds in a small seeding pot that drains about 10 centimetres into the soil.

3 – Keep soil moist but not drenched.

4 —Put the newly seeded pot in a warm (for seed germination) but not hot (for mold production) place. Keep the soil moist but not drenched.

5 – Once the seeds germinate, bring them to a sunny area and keep watering as needed.

6 – Eat basil and share with others.

Thank You!

Questions, concerns, comments?