

Sustainable Food / Water Proposal Team

The sustainability proposal team will focus on ensuring a sustainable food and water supply during a period of global warming. The proposal team's mission is to use the skills it developed during their workshops to address the proposal team questions below and integrate their answers into a **single-color team video message**.

The Sustainability Proposal Team may select to address sustainable food supply and/or water supply questions. A minimum of two (2) questions must be addressed in their color team proposal.

Sustainable Water Supply

- Water – Where does water come from?
- How does global warming impact water systems?
- How does global warming affect distribution of moisture in the atmosphere?
- What is your fresh water reuse and conservation plan?
- What is an adequate fresh water supply and how can it be sustained?
- How does population density affect your recommendations?
- What is your recommended solution for rural areas? Urban areas?
- What is your regional strategy?
- How will global warming effect sea levels? What will be the affect?

Sustainable Food Supply

- Food – Where does food come from?
- How do changing weather patterns affect food availability, supply chain and storage?
- How would you modify growing environment and plants to accommodate climate changes?
- How do climate related changes to the food supply affect nutrition? At what cost?
- What effect will global warming have on pest control?
- What is your recommended solution for rural areas? Urban areas?
- What is your regional strategy?
- How will global warming impact global supply chain?

Workshops: Members of the Proposal Team will attend sustainability workshops discussing potential approaches to ensure a sustainable food and water supply. Each Proposal Team member will attend three (3) of the following workshops:

- Sustainable Water Supply
- Sustainable Food Supply
- Robert Hazen's workshop on Carbon
- Quantum Computing – energy optimization
- STEAM Punk & Januvian Thinking
- Bioengineering a sustainable food supply
- Atmospheric water

"We cannot solve our problems with the same thinking we used when we created them."
Albert Einstein

Library - Additional information will be provided by the PF team. Relevant links and data sites will be listed in the appendix

Appendix/Resources:

NASA - <https://climate.nasa.gov/global-warming-vs-climate-change/>

Note to scholars: How do you Eat an Elephant? From Michael S. Toon; Artist, Designer, Builder, Engineer - <https://treeofwaterandpower.com/lettertoattendeesoffibonacciconference2023/>

Food –

What is food sustainability? <https://www.hsph.harvard.edu/nutritionsource/sustainability/>

NASA's newest mission is focused on helping farmers - <https://www.agweb.com/news/crops/crop-production/nasas-newest-mission-focused-helping-us-farmers>

Crops without Water

https://www.ted.com/talks/jill_farrant_how_we_can_make_crops_survive_without_water

Floating Solar Farms

<https://www.ecowatch.com/floating-solar-farms-climate-crisis-2638980599.html?fbclid=IwAR1GSFcy55Mph0XPjgJdVMCXL1oSXq5C0BZFeEb0Tm8ayWiQ1JNA4Pbfs8>

Livestock is the Solution Not the Problem

https://hoards.com/article-26613-livestock-is-the-solution-not-the-problem.html?fbclid=IwAR1UovXAZGLbGdWuvOqIWnxND6mJZTj_g2mkiwhliRc7c4fKkgpolwG6AM

Climate smart commodities projects – food symposiums <https://www.trustinfood.com/americas-conservation-ag-movement/>

Aquaponics - <https://www.theaquaponicsource.com/what-is-aquaponics/>

Plate and the Planet - <https://www.hsph.harvard.edu/nutritionsource/sustainability/plate-and-planet/>

Tomorrow's Proteins - <https://www.xprize.org/prizes/feedthenextbillion>

Insects/mealworms as a food source - <https://www.youtube.com/watch?v=avutyRSh4w>

Cool Effect projects - <https://www.cooleffect.org/projects>

Alberta Innovates – (the province of Alberta's next level innovations for net zero)
<https://learnhow.philespace.com/>

Composting -

<https://www.compostfoundation.org/Education/Compost-Resources>

The art and science of agriculture -

[The Art and Science of Agriculture \(nationalgeographic.org\)](https://www.nationalgeographic.org/learnhow.philespace.com/)

Is Your Avocado Toast and Almond Milk Harming Bees? Maybe - EcoWatch

<https://www.ecowatch.com/bees-avocados-almonds-2650886308.html>

Crops and sustainability –

<https://www.agweb.com/news/business/conservation/nutrien-ag-solutions-and-bunge-announce-soybean-program-connect->

[value?mkt_tok=ODQzLVlHQi03OTMAAAGMXeYuEySdsrb36kL0njHbx3VpiPk0OrEwilP1rkugwOJcnEnUU7Z-GMZqrxK3-gtsW5ZjGL7X91z2-A96ls7qtLgFM1Dmqnlmy-ydK3fEWH79pwWi](https://www.valent.com/Articles/662d07d4-6628-47d7-b080-e0454b240e4f/valent-usa-launches-new-framework-to-help-grower?mkt_tok=ODQzLVlHQi03OTMAAAGMXeYuEySdsrb36kL0njHbx3VpiPk0OrEwilP1rkugwOJcnEnUU7Z-GMZqrxK3-gtsW5ZjGL7X91z2-A96ls7qtLgFM1Dmqnlmy-ydK3fEWH79pwWi)

New Framework to help growers advance sustainable agricultural production -

https://www.valent.com/Articles/662d07d4-6628-47d7-b080-e0454b240e4f/valent-usa-launches-new-framework-to-help-grower?mkt_tok=ODQzLVlHQi03OTMAAAGMXeYuE8wzzWJkHUjC0IWVUTjj6yCMYQqBzD84nZhJxj_Tw447SOilpJLxUS24DG6JAopJkVX1rCzTXdS3zIU4aS3KGqKTJJtYt3M5dC3E9w-HpYYU

New Feed Additives Show Promise for Reducing Enteric Methane: <https://www.rti.org/insights/new-feed-additives-show-promise-reducing-enteric-methane>

Food Security and Agriculture: <https://www.rti.org/practice-area/food-security-and-agriculture>

Fibonacci sequence and harvest sunlight:

Water –

What is water sustainability? (and examples of strategies)

<https://www.aquatechtrade.com/news/water-treatment/sustainable-water-essential-guide>

<https://blog.aslglobal.com/blog/world-water-day-what-is-water-sustainability-and-why-does-it-matter>

Water reuse - <https://www.epa.gov/waterreuse/basic-information-about-water-reuse#basics>

California's water plan/sustainability - <https://water.ca.gov/What-We-Do/Sustainability>

Ocean Clean Up-Interceptor River Cleaning Device

<https://www.facebook.com/TheOceanCleanup/videos/549877089123104/UzpfSTU2OTk5MzQxNjUwMDE1ODoxNDU3NjQxOTkxMDY4NjI1/>

Future of hydration - <http://www.oohowater.com/category/oohowater/>

Sustainable and innovative technologies for water purification (saltwater/wastewater into freshwater) - <https://www.nature.com/articles/s41570-021-00264-7>

Sustainable water framework that is efficient and affordable for cities -

<https://www.openaccessgovernment.org/sustainable-framework-cities-water-efficient-affordable-wastewater-planning-development/133386/>

Sustainable technology for access to water - <https://www.unep.org/youngchampions/bio/2020/latin-america-and-caribbean/max-hidalgo-quinto>

Programs and Tools to build the resilience of the world's water resources: <https://www.rti.org/practice-area/water-resources>