



KA'A'GEE TU FIRST NATION FIREBREAK FARMS

Laurier researchers are working with Ka'a'gee Tu First Nation (KTFN) and territorial fire managers to establish a Firebreak Farm that supports the community's food system and adapt to climate change.

FIREBREAK FARM PILOT

KTFN has a long history of fire, including the 2014 fires that lead to the emergency evacuation of the village. This fire burnt most of the forest surrounding the community, including the loss of trap lines, berry picking areas, traditional trails, and cabins. As a result, KTFN members are keen to establish a firebreak around their community to protect from future fires. But Elders also highlight that Traditional Knowledge says that the ground should not be cleared and left empty.

Around the same time, Chief Chicot and researchers travelled to Brazil to learn about **agroforestry, growing food within the forest while protecting the ecosystem**, to improve food security and adapt to climate change. From these experiences, the idea of a firebreak farm was born.

Figure 1 shows a potential firebreak around the community of Kakisa. To begin with, a small portion of this area will be used as a pilot. Experimental agriculture and agroforestry plots will be created. Also, testing of various carbon sequestering cover crops will be done to study how to mitigate carbon loss when clearing forest.



Figure 1, potential firebreak

FIREBREAKS

Firebreaks are cleared areas of forest that fire managers use to try to stop the progression of a wildfire when it approaches communities or other assets of value. This reduces dependence on other firefighting activities and can protect communities. These clearings need to be maintained to ensure lasting protection for the community. But firebreaks do not have to be just cleared land, they can also help meet a community's food system needs.

FOOD SYSTEM SUPPORT

A firebreak farm does not just protect from fire, it can also help support community food systems:

- In the cleared area of the firebreak, sustainable agricultural production ensures that the land is not left empty.
- The forest that edges the firebreak has the potential for agroforestry. This could include re-establishing lost berry patches and making other traditionally gathered food and medicine more accessible to the community.
- By consulting with community members on the location of the fire break, it can act as a connection to traditional trails and trap lines for improved access into the forest for hunting, trapping, and gathering.

By co-developing firebreak farming practices, we will help to ensure that firebreaks are in place to protect from fire, while also supporting community food systems.



Firebreak farm pilot location, Kakisa 2021



Lowbush cranberries

THE RESEARCH



Researchers planting garlic with Chief Chicot



Burnt forest along the Kakisa River

How is the research being done?

The firebreak farm pilot idea came about through community-based participatory action research, where KTFN members shared their ideas and visions for how to create a firebreak that meets their needs and uses Traditional Knowledge.

Research Findings:

- Jurisdictional issues over land use have hindered KTFN's ability to recover from the effects of the 2014 fire, establish the firebreak farm, and adapt to climate change.
- Trails, trap lines, cabins and other traditionally important places on the land should be prioritized in fire management decisions, including support to re-establish them.
- Growing food in firebreaks is a novel adaptation to the impacts of climate change on food systems.
- Access to the land is critically important to the well-being of the community and the ability to adapt to climate change.

INTERESTED IN LEARNING MORE?
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