

How does a smoked fish product from Flathead Lake relate to the food sovereignty movement of the Confederated Salish and Kootenai Tribes?

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Introduction

The Confederated Salish and Kootenai Tribes (CSKT) and their subsidiary Native Fish Keepers Inc. (NFKI) are engaged in an ongoing project to reduce the number of an invasive species of lake trout in Flathead Lake to enable the native species Bull Trout and West-slope Cutthroat Trout to make a comeback (Native Fish Keepers, INC., 2017). NFKI takes a multifaceted approach toward this goal; one major avenue is troll-netting the lake trout and then filleting and flash freezing the fish. This product is then donated to food pantries and sold to grocery stores and restaurants across Montana (Native Fish Keepers, INC., 2017). It is estimated that there were 1.5 million lake trout in Flathead Lake in 2014 when NFKI took on this project, and the goal was to remove at least 143,000 each year. While that goal has yet to be met, the tribes are taking a long-term view on this project, counting both the process and the product to be valuable in the ecological upkeep of the lake (Backus, 2017). In 2017, the last year for which data could be found, NFKI published data suggesting that the troll netting is starting to have some effect on the population of lake trout (CSKT, 2017).

In 2019, Dr. Wan-Yuan Kuo, in partnership with students at Montana State University (MSU), collaborated with CSKT and NFKI to create a Native food product that could add market value to their frozen fish filet and further fund their goal of reducing the prevalence of lake trout in Flathead Lake. The resulting product was a smoked fish filet. Dr. Kuo found that students involved in learning with the community about their food culture shifted their focus from negative food choices to positive identity empowerment (Kuo, 2019). Additionally, two key questions were posed and are the focus of the following research: 1) Can a food made from this invasive species be called Native?; and 2) How does this market product fit into the non-profit designation of the corporation, since the ongoing goal of the group is reducing the lake trout population, not profiting off the sales (Kuo, 2019)? To address the above questions, research was carried out in collaboration with Salish Kootenai College (SKC). The goals of the research were to use the smoked fish product questions from NFKI to explore the market possibilities of this product and look through this lens at the broader scope of the food sovereignty movement. The

findings from this project will shed light on future directions to further the CSKT's food sovereignty and resource stewardship in the smoked fish project and beyond.

Background

Studies on the quest for food sovereignty amongst Tribes located in present day Montana indicate that the Flathead Indian Reservation is one of the more food-secure reservations (Radford 2016). This status positions CSKT well to explore Tribal food sovereignty in the dimensions of food identity and food culture.

The first question, can a food be called a Native food if it is an invasive species, is one only the Tribes can answer, but the underlying issue at stake is what does “native food” mean in this context of food sovereignty. Raster and Hill (2017) argue that Tribal Sovereignty includes not only the ability to govern in the political sense, but also the self-determination of resources including food. This idea is further backed up in the modern definition of food sovereignty established in 2007:

“Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.” (DECLARATION OF NYÉLÉNI 2007)

The access to Native food systems as protected in treaties is vitally important in every level of governance and to each member of a tribe in their access to Native foods (Raster & Hill 2017). In the 1855 Hellgate Treaty, the exclusive rights to fishing the lakes and streams on the reservation were granted to the Confederated Salish and Kootenai Tribes (Hellgate Treaty 1855). However, in this case it could seem tricky to define Native or Indigenous foods because the product in question is an invasive species to Flathead Lake. The CSKT have taken it upon themselves as guardians of the waters of Flathead Lake to endeavor the safe removal of the invasive species. The trout removal presents an opportunity for continued demonstration of the Tribes' ability to manage resources adeptly, not only in an historic sense, but also in an ongoing and defining way which the CSKT have been doing through NFKI. While this is obviously a Native project, the question of calling it a Native food remains.

The second question about profitability, Dr. Kuo addressed in her paper when she stated that “success in food product innovation [is] not solely based on profit, but also the socio-cultural and environmental benefits” (Kuo 2019). NFKI has proven their ability to work with the resources they have and to include the community in their work in both sport fishing competitions and in making the fish filet product available to people in the community (Native Fish Keepers, INC., 2017). These steps have been true to their culture and have shown leadership and innovation toward defining what it means to be Indigenous food producers, utilizing the three pillars of sustainable production: economic, ecological, and social. Understanding the Tribal stakeholders' view on profiting from the smoked trout is critical to the introduction of the smoked trout product into the food sovereignty movement of the CSKT.

Therefore, the hypotheses are: 1) that while the Tribal members who live on the Flathead Indian Reservation do not have specific cultural ties to the lake trout, it is a valid “Native” food in that the Tribes have taken on the responsibility of managing the fish populations as part of their

historic right to the lakes and streams; and 2) that the environmental and social aspects of this project have importance alongside the economic gains. Native peoples have historically utilized as much of a harvested animal as possible and the Tribes desire to be ecologically responsible in this matter remains strong. The smoked fish filet project could be taken on by a different entity within the Tribes, both supporting the mission of NFKI and starting a new Tribally owned business, so there is still a strong opportunity for further development of the smoked fish filet product.

Methods

The study was conducted in collaboration with Brittany Robles, a business major from SKC under the oversight of Dr. Wan-Yuan Kuo of Montana State University and Salish Kootenai College Business Program director Rachel Andrews-Gould and Professor Dacia Whitworth. Internal Review Board (IRB) approval was granted by MSU and SKC. The study was conducted in two parts: first, a survey, and second a focus group discussion.

Survey

The survey was aimed at investigating the status of potential markets for Tribally created smoked fish products and exploring individual perceptions and definitions of food sovereignty and Native foods. It was conducted among two populations: first, Native residents of the Flathead Reservation; and second, food service workers in Montana. The total number of participants was 245: 133 Native and 112 non-Native. Both populations were asked a set of similar questions, with a few different questions for each group that were aimed more specifically for that population. The questions were a combination of multiple choice, short essay, and rated responses from 1-5. For rated and multiple-choice questions, standard accepted formats from other National surveys were used to be able to compare data from other surveys.

The survey was created on Qualtrics software (Provo, Utah) and distributed to food service workers primarily through KayAnn Miller, Executive Sous Chef for MSU Dining Services on her food service workers' network. Additionally, Brittany Robles distributed the survey to co-workers on the Flathead Reservation. Between these two sources, we were able to obtain our food service worker responses- with 149 food service workers of which 95 were also Native. For the Native respondents, the survey was sent to classmates, school associates, and stakeholders of the Confederated Salish Kootenai Tribes. These included contacts from earlier work, and contacts made through the MSU Tribal Extension Office.

Each survey group (food service workers and the Native community) was asked multiple choice questions with space for additional comments regarding their knowledge and perceptions about the lake trout, the smoked lake trout product, and other foods that are traditionally considered Native foods. They were also asked about perceptions and definitions of food sovereignty, and how they felt about marketing Native foods on and off the reservation. Additionally, participants were asked how they made food choices and acquired food, and if they had health concerns about the lake trout.

The food service worker group was also asked if their operations used the current available lake trout product, and if they had interest in selling a value-added smoked lake trout product at their food service establishment. The Native group was asked additional questions about working with research groups and protecting their Tribal knowledge. It is a high priority in this group of researchers to protect Native knowledge and legal rights.

The survey data was analyzed with the help of MSU Graduate student Mattie Griswold using Qualtrics analytical programs and NVIVO (Burlington, MA) Qualitative analysis. The survey data was broken down in Qualtrics into Native or Non-Native respondents, and further divided by theme and question. Short essay and additional comment responses were analyzed with NVIVO and placed into themes of Native foods, food sovereignty, and the lake trout product, separated again by Native and non-Native participants.

Focus Group

The focus group was conducted online through WebEx. There were nine participants: two Native males and one non-Native male, and four Native females and two non-Native females. The participants all live or work on the Flathead Indian Reservation and are all connected to Tribal entities in one way or another. There were two extension agents, three Tribal government employees, two people who work at Salish Kootenai College, one dietitian, and one person working in food sovereignty throughout Montana. Participants ranged in age from 20-60 years old. There were two main topics for the focus group: Food sovereignty, security, and sustainability; and the value-added smoked lake trout product. Each topic had several prompt questions, and each participant was given the chance to respond as they chose to each prompt and respond to other participants. The focus group lasted over two hours and resulted in 25 pages of transcriptions. These were analyzed with NVIVO software by Havilah Burton. The data was divided by broad topic and then further into sections on sovereignty, security, sustainability, community, access to foods (Native and non-Native foods) tribal government oversight, Native foods in schools, health issues with lake trout and other foods, defining Native foods, and the smoked lake trout product.

Results

Through collaborations and a better understanding of various stakeholders, the scope of this project changed several times throughout the year. Because of this, while the researchers attempted to answer the original questions, the questions were broadened to include the various insights and perspective shifts of the researchers with an attempt to explain the significant shifts throughout.

Food Sovereignty



Figure 1: Native responses to what food sovereignty means

Survey Participants were asked if they were familiar with the term “food sovereignty” and what it meant to them. 58% of Native survey respondents said they had heard the term but did not know what it meant, while 25% responded with a definition. The definitions were sorted by word count with notable differences between Native and non-Native participants. Native people were more likely to use the words “grow” “sustain” “access” and “traditional.” The following comments were Native responses from the survey:

“Having agency and access to more traditional and quality food choices.”

“Food Sovereignty is the ability for a people to sustain themselves with the foods needed to survive and thrive. This means the ability to grow, harvest, gather, hunt, fish, preserve and store the food. The more independent from outside sources the better.”

“Building a sustainable system where your food growing is of indigenous and historical significance to a tribe. The ability to grow those items and control what goes into it (growing process) is what food sovereignty means to me.”

The non-Native participants of the survey were not as aware of food sovereignty, with 68% saying that they had heard the term but didn't know what it meant, and 20% offering some sort of a definition. The word cloud from the non-Native group showed that “waste” and “control” came before “access” and “sustain”. Some comments from this group were:

“Local control of food supply with access to healthful & culturally appropriate ingredients; foods gathered/grown/raised sustainably (in an ecologically sound way)”

“Ownership of the food story/heritage/life.”



Figure 2: Non-Native responses to what food sovereignty means

“Pay more attention to not wasting food.”

“The main concern is food safety.”

“Eating and growing within a system fully controlled by the eaters and within a standard of quality, and respect and care for the environment and the people that ate the food in the past and those that enjoy it today.”

Focus group participants further defined food sovereignty as something that is a right, but one that needs to be practiced and self/community defined, or there is a risk of losing it. “It is a complex topic” participants said, “that is multifaceted and overlaps with food security and sustainability.”

Native Food Production and Access

Several themes emerged within the broader topic of Native foods. These were: protecting traditional Native foods from over harvesting and non-Tribal harvesting, whether selling Native foods was a good idea, who would or should potentially profit from such sales, elder response and direction for Native foods growing, and which foods could potentially be grown or harvested, and which could not. This enabled the researchers to get a clearer picture of how complex the issues of Native food product development are, and how access is not always equal to foods on and off the reservation.

Two focus group participants expressed that Native foods should not be sold or made available to non-Natives because many Native people do not even have access to traditional foods. One participant explained that caring for plants and harvesting them yourself is an important part of the health of eating Native foods. Native foods come with relationship, not just buying something at a store. Because of this, the participant was against selling Native food products. Another participant had recently received a food box of Native products from other tribal groups around the U.S. and Canada and was excited by the possibilities of producing Native foods on the Flathead Reservation. Currently, huckleberries (which are often harvested by non-Native people) were the only traditional food that was for sale on the reservation according to this participant.

Two focus group participants were “guests” on the Flathead Reservation and were enrolled members of other tribes. These individuals were not free to hunt or gather on the reservation, even though they have lived with and supported the CSKT for decades. Both participants showed full support for this restriction, one commenting that it was sad that non-Native people harvested huckleberries with the long sticks that ruin the plants. Both these Native people had a high level of respect for Tribal Government control of who is allowed to harvest and profit from foods on Tribal lands. They both felt fine about receiving gifts of food from their hosts.

Smoked Lake Trout Product

While there were many doubts among focus group participants about selling Native foods or profiting from them, when the lake trout product was brought up, the story changed dramatically.

Respondents were quick to point out that the lake trout are an invasive species to Flathead Lake, and the primary goal of Native Fish Keepers inc. is to remove as many lake trout as possible to give Native species a chance at survival. Focus group participants who had been hesitant to support other Native food products, were very supportive of giving or selling lake trout wherever it could be sold but remained hesitant about the idea of labeling them Native foods. Instead, focus group participants thought that the story of the fish and Native Fish Keepers mission should be told: That people should know that they were helping to rid Flathead Lake of an invasive species, and that their purchase supports that mission. Other participants added that care should be taken not to belittle the fish, as they are native to somewhere else, just not Flathead Lake, and that the goal is to restore the native species of the Flathead area. Participants did want to know if the product would be produced by Montana State University or a Tribal entity.

The bigger concern from participants, particularly Native survey respondents and focus group members, was about the mercury levels in the lake trout. The question was asked in the survey “Do you think the lake trout from Flathead Lake is a healthy food choice?” 62% of Tribal members thought either definitely yes or probably yes, while 92% of non-Native respondents thought the same.

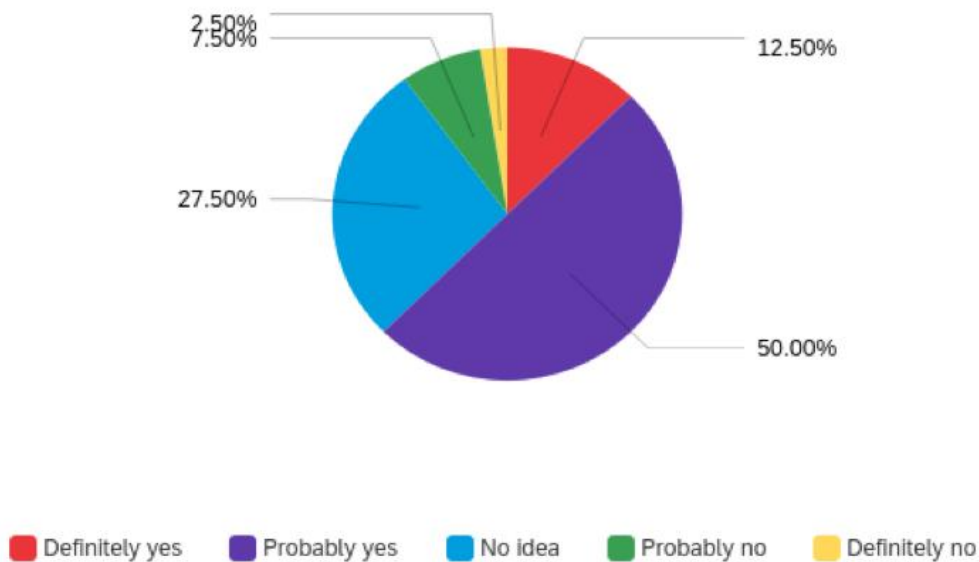


Figure 3: Native response to Flathead Lake trout being a healthy food choice

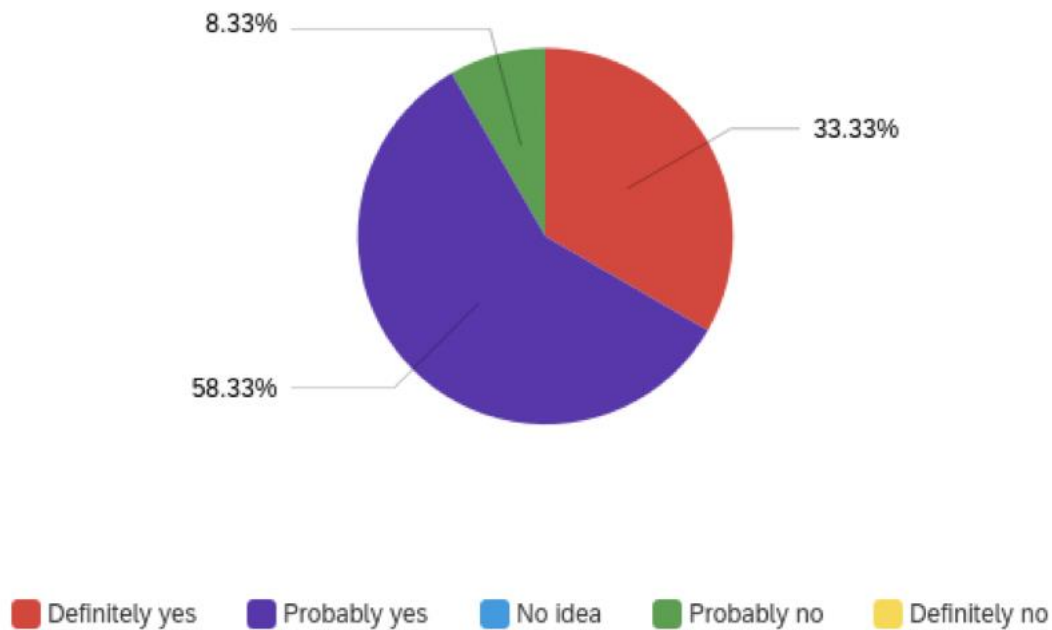


Figure 4: Non-Native response to Flathead Lake trout being a healthy food choice

Comments from Native survey and focus group participants made it clear that mercury is the biggest health concern, but several participants conversely recognized the health value of eating fish, even lake trout if they were smaller and had less chance of bio-accumulating mercury.

Food service workers in the survey were asked if they currently offered lake trout from Flathead Lake in their food service establishment. 45 Native participants said they did, while 42 did not and 24 said they would like to. 26 non-Native participants said they offered it, 46 said they did not, while 19 said they would like to. When asked why they did not carry the fish 51% of Native survey participants who said they did not offer the fish said it was because it was poor quality while 32% said they didn't know it existed. Of non-Native survey participants 72% did not know it existed.

When asked about interest in offering a Tribally produced smoked lake trout product 39% of Native food service workers said yes, and 56% said maybe, while for non-Native food service workers 30% said yes while 67% said maybe.

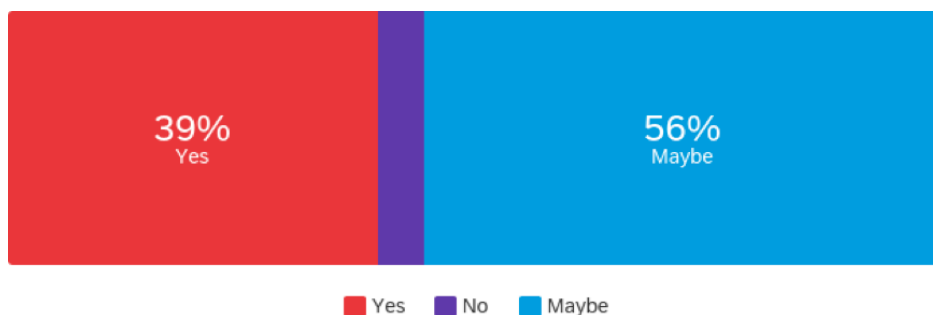


Figure 5: Native response to offering smoked trout product

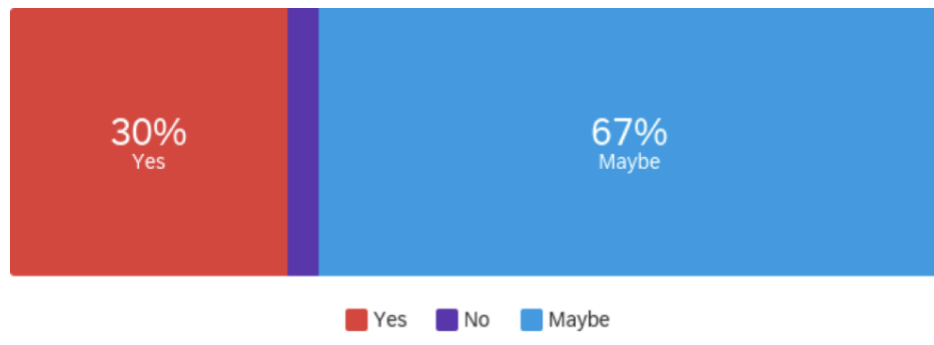


Figure 6: Non-Native response to offering smoked trout product

Discussion

Returning to the two key questions posed for this research: 1) Can a food made from this invasive species be called Native?; and 2) How does this market product fit into the non-profit designation of the corporation, since the ongoing goal of the group is to reduce the lake trout population, not profit from the sales.

The response to the first question was answered succinctly in the focus group discussion by Tribal members who felt comfortable calling the fish a Native produced product (assuming that it was produced by Natives, not MSU) but the food itself is an invasive species to Flathead Lake, and they wanted the story of the fish and the ongoing reason for the Tribal effort to remove the trout from the lake to be included in the educational packaging material about the smoked trout product. While there were many differing and cautious responses to the idea of the Tribes profiting by producing traditionally eaten Native food products, the smoked lake trout product does not fall under that category, and is thus considered fair game for production purposes, always contingent on the safety and good ecological practice of the people harvesting the fish, and the safety and health of the people eating the fish due to possible mercury contamination. If Tribal members have access to the fish products they want, the focus group participants did not voice any concerns of extending the market for the fish to non-Native populations.

The second question about how this product fits into the non-profit designation of NFKI has a twofold answer. First, NFKI's work is valuable to the ecologic, social, and economic work of the Tribes on the Flathead Reservation, for these reasons the good work of NFKI should be supported in each of those areas. At this time, there is some evidence that the ecological benefits to Native species may be starting to appear. There is some evidence (Native Fish Keepers, Inc) that the lake trout are feeling stressed, and their numbers may be declining. The social impact of the Tribes practicing sovereignty and stewardship of the waters and species in their care is in working toward Tribal goals and using the fishing of the lake trout to further Tribal and non-Tribal enjoyment of sport fishing on Flathead Lake. This sport fishing, especially in the form of Mac Days, hosted by the Tribes every Spring and Fall are fun and competitive community building events, encouraging people to get out and fish. NFKI traditionally ups the ante in these events by tagging fish with monetary prizes to encourage more fishing. Economically, the only

support for both the fishing prizes, and the ongoing gill netting etc. of the fish by NFKI is the income from selling the fish, and the support of the Tribes. The sale of the fish does not come anywhere close to paying for its removal from the lake. The proposed smoked lake trout product could expand the current market and demand for the fish, thus helping to support its removal. None of this impedes NFKI's ability to function as a non-profit.

These findings could act as a guide to other invasive species marketing by Native peoples, and conversely as a caution against marketing more traditional foods outside of the reservation or by non-Native entities when Native people still struggle with access to their traditional foods.

Food sovereignty was an overarching theme of this study and has been a buzz word on the Flathead Indian Reservation for the last few years. There is ongoing work within the leadership and students of the Reservation toward assessing the status and future development of food sovereignty on the reservation, and this study may be a small step supporting that ongoing work. Survey and Focus Group respondents both voiced concerns over access to Native foods, making it clear that while growing and harvesting foods was important to food sovereignty, making that food accessible to Native people was a higher priority than marketing foods to sell to non-Natives.

Next Steps and Further Discussion

There is current and ongoing research being conducted by the University of Montana Flathead Lake Biological Station in conjunction with CSKT and funded by a grant from the EPA to update the information on the mercury levels in different sized and aged lake trout and whitefish in Flathead Lake (LundQuist, 2020). This information can better inform intake and marketing information for future distribution of lake trout products.

Several entities have expressed concerns that if interest in the lake trout increased then the current NFKI forecasted harvests would not be able to keep up with demand. This should be studied, and current and projected supply and demand analyzed to insure sustainability in this program. However, considering that the stated goal of NFKI is to reduce populations of this invasive species, it might be the best possible outcome for demand to eventually outpace supply.

As the Bison Range and Water Rights settlement was recently passed in 2021, there will be new questions to answer about how the Bison will be managed by the Tribes and what relationships the Tribes and the bison will be able to restore or establish. Dr. Kuo plans to lead a class in Fall 2021 with Bison as the topic of research for product development, this study is imperative to that work in informing the team and Tribes in what direction the ongoing relationship between MSU Food Science Lab and CSKT will take.

Conclusion

While CSKT tribal members agreed that this fish should not be considered a traditional Native food, or marketed as such, they were comfortable with labeling it Native made or produced and were clear in their support of selling the fish as it is or made into a smoked fish product. This clearly answers the question of calling the lake trout a Native product.

Likewise, while NFKI has full time work in the fishing and processing of the trout, the Tribes should look for a Native entity to start an entrepreneurial enterprise which would buy the trout fillets wholesale from NFKI and smoke, package, and sell the fish throughout Montana, using the Native Montana Made sticker and including information about the work of NFKI and the Tribes in the invasive species lake trout removal. There is already beautifully written and informative information and labeling on NFKI's website and the Made in Montana Website that could be used as a guide. Additionally, updated, clear explanations of health benefits and accurate mercury cautions should be included. This clearly answers the question of how this product fits into the non-profit designation of NFKI.

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