



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

INDIGENOUS FOOD SOVEREIGNTY: PATHWAYS FOR NATIVE SCHOLARS

Tribal Food Systems
Research Fellowship

Revitalizing Indigenous food systems through research and knowledge-sharing



FIRST NATIONS
DEVELOPMENT INSTITUTE

Mapuana C. K. Antonio ^a
University of Hawai'i-Mānoa

Tabitha Robin ^e
University of British Columbia

Joseph P. Brewer II ^b
University of Kansas

A-Dae Romero-Briones ^f
First Nations Development Institute

Richard Elm-Hill ^c
First Nations Development Institute

Lois Stevens ^g
University of Wisconsin-Green Bay

Michael Kotutwa Johnson ^d
University of Arizona

Keith Williams ^{h*}
Athabasca University and First Nations
Technical Institute

Published online January 28, 2025

Citation: Antonio, M. C. K., Brewer, J. P., II, Elm-Hill, R., Johnson, M. K., Robin, T., Romero-Briones, A-D., Stevens, L., & Williams, K. (2025). Revitalizing Indigenous food systems through research and knowledge-sharing [Column]. *Journal of Agriculture, Food Systems, and Community Development*, 14(1), 5–10. <https://doi.org/10.5304/jafscd.2025.141.031>

Copyright © 2025 by the Authors. Published by the Lyson Center for Civic Agriculture and Food Systems. Open access under CC BY license.

Introduction

This inaugural column by the Indigenous Food Sovereignty Editorial Circle (IFSEC) in the *Journal of Agriculture, Food Systems, and Community Development* (JAFSCD) introduces a dedicated section of articles on Indigenous food sovereignty in partnership with First Nations Development Institute (FNDI). The column and the IFSEC reflect both our mission to work toward a more equitable and just food system, and JAFSCD's long-standing commitment to Indigenous food sovereignty, illustrated by the 2019 special issue¹ on "Indigenous Food Sovereignty of North America." An Indigenous-led editorial circle as part of JAFSCD, IFSEC uplifts Indigenous values and community food system aspirations in academic publishing. As an intro-

duction to the IFSEC, this column will briefly outline the centrality of food, place, and learning in Indigenous lifeways, the main differences between Indigenous and Western approaches to the food system, and some thoughts on the role of Indigenous ways of knowing and being for the collective flourishing of humanity and all our relations, human and otherwise. The cycle of themes, along with other emergent topics related to Indigenous food systems, will thread throughout future columns. The current geographic focus includes the continental United States, Hawai'i, and Canada. The geographic scope is determined by the territorial affiliations of IFSEC members and may broaden to include other nations and regions over time.

¹ See the special issue, JAFSCD volume 9, supplement 2, at <https://doi.org/10.5304/jafscd.2019.09B.024>

Food, Education, Territory, and Indigenous Ways of Life


Indigenous food systems in the territories presently known as the United States and Canada have been, and continue to be, drastically impacted by the leg- islated erosion of Indigenous cultural practices, the imposition of European gender roles, loss of lan- guage, and restricted access to traditional hunting, gathering, and agricultural sites (Daigle, 2017; Reader & Dew Johnson, 2017). This has resulted in significant food insecurity and a decline in nutri- tional health among many Indigenous communi- ties, contributing to higher rates of diet-related dis- eases such as diabetes and heart disease. The emer- gence of Indigenous food sovereignty is crucial for contributing to the overall wellness of Indigenous communities, improving food security, and revitalizing cultural practices.

The contemporary Indigenous food sov- ereignty movement—a resurgence of traditional food systems knowledge and practices—serves to coun- ter the ongoing state-sanctioned biopolitical manip- ulation of Indigenous Peoples through various instruments of surveillance and control (Mona- ghan, 2013; Rotz & Kepkiewicz, 2018). For instance, almost one thousand Indigenous youth, interred in Canadian residential schools from 1942 to 1952, were purposely malnourished as unknow- ing participants in state-sanctioned nutritional research (Mosby, 2013). The establishment of both the reserve system (in Canada), and the reservation system (in the United States), as well as residential schools in both Canada and the U.S., had a devas-

tating impact on Indigenous food systems through the assimilationist agenda of the education system (Partridge, 2010) and the isolationist agenda of the reserve/reservation system (Barman et al., 2011). IFSEC's support of Indigenous food systems ap- plied scholarship is one of many sites of resistance to the ongoing colonial project on Turtle Island and beyond.

Until recently, in many parts of North Amer- ica, Indigenous foodways were thought to be almost exclusively based on the migratory hunting and gathering of wild foods (Deur & Turner, 2005). Research over the past two decades has demonstrated that Indigenous peoples throughout North America practiced a form of agriculture that was so unrecognizable to Western eyes that it took anthropologists hundreds of years to identify (Anderson, 2006; Deur & Turner, 2005). Tradi- tional Indigenous agriculture on Canada's west coast and boreal regions included such techniques as nutrient management via fire and organic amendments, pruning of berry bushes, plant breed- ing, and others (Deur, 2005; McDonald, 2005; Turner et al., 2013). Of course, many Indigenous nations, especially in southern Canada and south of the arbitrary border separating present-day Canada from the U.S., grew the Three Sisters: corn, beans, and squash (Cornelius, 1998). Contrary to long- held beliefs, contemporary research has shown that Indigenous peoples across North America devel- oped diverse and sophisticated agricultural systems.

^a Mapuana C. K. Antonio, Dr.PH., Associate Professor and Specialization Head of the Native Hawaiian and Indigenous Health Program, University of Hawai'i-Mānoa; antoniom@hawaii.edu;

 <https://orcid.org/0000-0001-7227-6530>

^b Joseph P. Brewer II, Ph.D., Professor, Environmental Studies & Indigenous Studies Programs, University of Kansas; joseph.brewer@ku.edu;

 <https://orcid.org/0000-0002-2625-5840>

^c Richard Elm-Hill, Senior Program Officer, First Nations Development Institute, Longmont, Colorado, USA; relmhill@firstnations.org

^d Michael Kotutwa Johnson, Ph.D., Assistant Professor, Indigenous Resilience School of Natural Resources and the Environment, University of Arizona; kotutwa@arizona.edu

^e Tabitha Robin, Ph.D., Assistant Professor, Faculty of Land and Food Systems, University of British Columbia;

Tabitha.Robin@ubc.ca;

 <https://orcid.org/0000-0002-2123-4485>

^f A-Dae Romero-Briones, LL.M., J.D., Director of Programs—Native Agriculture and Food Systems, First Nations Development Institute; abriones@firstnations.org;

 <https://orcid.org/0009-0003-6444-5869>

^g Lois Stevens, Ph.D., Assistant Professor, Faculty of Education, University of Wisconsin-Green Bay;

StevensL@uwgb.edu;

 <https://orcid.org/0000-0001-5761-9048>

^h * *Corresponding author*: Keith Williams, Ph.D., Assistant Professor, Centre for Interdisciplinary Studies, Athabasca University, and Adjunct Faculty, First Nations Technical Institute; kwilliams@athabascau.ca;

 <https://orcid.org/0000-0001-8191-5250>

Still, there is need to challenge and re-evaluate Eurocentric narratives about Indigenous knowledge and practices to demonstrate how those colonial views are still impacting Indigenous communities. Indigenous agriculture did not necessarily manifest as rectilinear plots, there were no fences, and the crops managed were not familiar to the European settlers (Anderson, 2006). Yet pre-contact North America was a managed landscape. The unwillingness of early explorers and settlers to acknowledge the presence of Indigenous agriculture, or their inability to perceive it, led to the convenient declaration of North America as *terra nullius* (unused or empty land) (Culhane, 1998). The Catholic Church's Doctrine of Discovery decreed that any *terra nullius* discovered that was uninhabited by Christians could be taken and its occupants subjugated (Reid, 2010). While it is an ancient piece of legislation, *terra nullius* was cited by U.S. Supreme Court Justice Ruth Bader Ginsberg in 2005, in a ruling against tribal sovereignty for the Oneida Indian Nation (Pieratos et al., 2021). By denying the restoration of sovereignty to repurchased lands, the ruling reinforced a colonial framework that systematically invalidates Indigenous sovereignty and perpetuates the theft of Native lands, and prioritizing settler governance over tribal authority. Contemporary industrial food systems, and the laws and economic structures that prop them up, are the latest iteration of the harmful imposition of food systems—associated colonial relationships with both place and the myriad beings that co-inhabit place with us. The grassroots resurgence of Indigenous foodways both “talks back to empire” (Ashcroft et al., 2003) and more importantly creates a container, or basket, for collective healing.

Healing from the trauma of colonization necessitates a profound understanding of the interconnectedness between Indigenous thought, territory, and the ongoing struggle for decolonization. Osage scholar Robert Warrior (1999) provocatively suggests that Indigenous thought is fundamentally based on *topos* (place or territory), whereas Western paradigms are founded on *logos* (reason). The centrality of territory to Indigenous thought is also emphasized by Joe Sheridan and Kanyen'keha:ka thinker Dan Longboat (2006), who specify that human thought is not an abstract concept but

rather emerges from, and is inextricably connected to, place. Tuck and Yang (2012) famously asserted that “decolonization is not a metaphor” (p. 3). Colonization is fundamentally predicated on the unlawful appropriation of land, and in that way, decolonization must include redress and reparation for the Indigenous territories that were unlawfully taken. It is clear that decolonizing our minds, our social institutions, and our relationships with each other and with the more-than-human—including those beings we call food—must start with territory.

A Network of Support: The Tribal Food Systems Research Fellowship

First Nations Development Institute (FNDI) aims to uplift and sustain the lifeways and economies of Native communities through advocacy, financial support, and knowledge sharing. Established in 1980 as a national Native-led nonprofit organization, FNDI recognizes that responses to and resolutions for Native issues must emerge from Native communities and their worldview rather than being imposed by the Western world. In *On the Matter of Foundation Giving: Examining the Inequity of Private Philanthropy's Investment In Native Communities*, they report that Native people and organizations have been driving change in the philanthropic sector for years. Advocacy takes many forms, from research to standing up and fighting for Native voices and perspectives in philanthropic spaces. Still, the overall share of philanthropic resources supporting Native organizations and causes is less than 1% (First Nations Development Institute, 2024, p. 13). In other words, only a small portion of philanthropy funding reaches Native communities directly, and an even smaller share is dedicated to academic research, illustrating the urgent need to strengthen support for Native-led scholarship.

The Native Agriculture and Food Systems Investment (NAFSI) program at FNDI exists to honor Native food sovereignty and food security and empower tribal food economies and the living relationship between community, place, and food. In 2022, FNDI received a US\$1,700,000 grant from the W. K. Kellogg Foundation to support the NAFSI program. One of the key objectives of the grant was to launch the Tribal Food Systems

Research Fellowship (TFSRF) and increase the amount of Native-led published research. The initiative entrusts Native scholars to contextualize their theories, ways of knowing and understanding, and datasets in critical areas such as community food systems, the socio-cultural importance of food, and intergenerational food relationships. By making this research accessible, the fellowship provides Tribes and Native communities with valuable resources to advance their work in food sovereignty.

The TFSRF embodies a commitment to diverse representation with intergenerational and intertribal knowledge sharing, a vision brought to life through its distinguished recipients, including Puanani Apoliona-Brown, who is Native Hawaiian; Danya Carroll, representing the White Mountain Apache Tribe and the Navajo Nation; Andrew Curley from the Navajo Nation; Becca Dower from the Turtle Mountain Band of Chippewa Indians; Elsie Dubray from the Cheyenne River Sioux Tribe, Mandan, and Hidatsa; Daniel Hayden, who is of the Comanche Nation of Oklahoma, Pawnee, and Muscogee; Heidi Ilima Ho-Lastimosa, who is Native Hawaiian; Jasmine Jimerson, who is from the Oneida Nation; Stafford Maracle from the Tyendinaga Mohawks of the Bay of Quinte; and Jill Falcon Ramaker from the Turtle Mountain Band of Chippewa Indians. Each fellow received a US\$30,000 fellowship award to support their efforts as Native scholars, balancing their academic pursuits with meaningful contributions to their work and communities.

Native students report they felt visible when in a dedicated space or engaged in community and academic activities with other Native students (American Indian College Fund, 2019). Native advisors—Anita Frederick, Turtle Mountain Band of Chippewa Indians, president of the Tribal Nations Research Group; Devon Mihesuah, Choctaw and Chickasaw, professor in the Humanities Program at the University of Kansas; and Keith Williams, who has ancestry from Tyendinaga, a Mohawk community in Canada, assistant professor in the Faculty of Humanities at Athabasca University—provided invaluable perspectives and networked support for the fellows. John Phillips, chief of staff at the American Indian Higher Education

Consortium, evaluated the project. Throughout the program, this team explored technical topics, such as selecting manuscript types, organizing information, and developing synopses, and specific subjects relevant to Native scholars, including the Tribal review process, the significance of Indigenous voices in higher education, and navigating the challenges of student and professional life. Gatekeepers are concerned about their jobs, promotions, profit, and power. Most scholars are concerned about those things, but the major difference between the groups is that Native and non-Native scholars fighting the status quo are concerned about the welfare of tribes, empowerment for Indigenous Peoples, inclusive stories of the past and present, and overturning the colonial structure, including the gatekeepers (Mihesuah & Wilson, 2004, p. 33).

Building deeper relationships with one another was a focus during many of the sessions with fellows and advisors. In our Native writers' calls, we asked, "Why do I write?" Puanani Apoliona-Brown shared, "I write because the current path that mistreats land and people is unsustainable. Indigenous values, which teach us that land is our ancestor and our 'Ohana, are restorative. 'Āina is 'that which feeds.' This means we must care for the earth. The fate of land and people is intrinsically tied, and so I write to amplify the brilliance of my ancestors, to share what is at stake, and to raise consciousness about harm that is too often invisible."

The JAFSCD Indigenous Food Sovereignty Editorial Circle special section features the work of five TFSRF scholars. In *Food access interventions in American Indian and Alaska Native communities: A scoping review*, **Dayna Carroll, Lynn Mad Plume, and Nicole Redvers** examine community food access through the Social Ecological Model (SEM), identifying key social and environmental factors to guide future interventions in Native communities. Similarly, in *Hāloa: The long breath of Hawaiian sovereignty, water rights, and Indigenous law*, **Puanani Apoliona-Brown** explores efforts led by Native Hawaiians to protect sacred lands and waters as acts of resistance to settler colonialism, emphasizing the role of the Hawaiian Renaissance in reclaiming cultural pride and rights. In *A framework to guide future farming research with Indigenous communities*,

Daniel Hayden and **Amber Hayden** advocate for a collaborative research framework that integrates Indigenous farming principles such as polycultures, seedkeeping, and sustainability while respecting Indigenous knowledge systems. In *Understanding Indigenous knowledge of conservation and stewardship before implementing co-production with Western methodologies in resource management: A focus on fisheries and aquatic ecosystems*, **Stafford Rotehrakwas Maracle**, **Jennifer Tewathahá:kwa Maracle**, and **Stephen C. Lougheed** stress the importance of recognizing Indigenous knowledge as a distinct framework for enhancing conservation efforts, particularly in fisheries and aquatic ecosystems. Finally, in *Restoring an Onkwehonwehnéba ecosystem*, **Jasmine R. Jimerson** reflects on the work of the Akwesasne Freedom School to create a community that fosters sustainable living through the integration of Haudenosaunee language, culture, and traditional practices, offering a model for strengthening connections to land, food, and overall well-being.

Together, these studies emphasize the indispensable role of Indigenous knowledge in food systems in academia. A common yet significant theme that emerged was the instinctive incorporation of personal experience into scholarly work. Native scholars demonstrate that they are not detached from their research; rather, their personal, ancestral, and non-human connections are legitimate parts of their academic contributions. As interest in academic research related to Native food

systems increases, studies conducted by non-Native scholars and funded by non-Native organizations and institutions are likely to be limited to mainstream understandings. To ensure that Indigenous wisdom, philosophies, and scholarship are fully recognized as equal and valid in an academic worldview heavily built on the framework of Western science, we must not only support Native intellectuals but also work to reconstruct the systems that allow Native experiences and the natural world to have a voice.

Conclusion

The Indigenous Food Sovereignty Editorial Circle exists to empower Indigenous People in the food systems applied research sphere, with a special emphasis on academic publishing. We will continue to collaborate with partners like First Nations Development Institute and the Tribal Food Systems Research Fellowship to realize our vision. The published work of IFSEC supports Indigenous communities working to revitalize Indigenous food systems and their associated language and cultural knowledge. Under the wing of JAFSCD, this critical work exemplifies structural approaches to decolonization of the food systems that have, for far too long, contributed to the colonial erasure of Indigenous Peoples. We call on Native scholars interested in pursuing this path to contribute their perspective to shape our future through an Indigenous lens.



References

- American Indian College Fund. (2019). *Creating visibility and healthy learning environments for Natives in higher education*. <https://collegefund.org/creating-visibility-and-healthy-learning-environments-for-native-americans-in-higher-education/>
- Anderson, M. K. (2005). *Tending the wild: Native American knowledge and the management of California's natural resources*. University of California Press. <https://doi.org/10.1525/9780520933101>
- Ashcroft, B., Griffiths, G., & Tiffin, H. (2003). *The empire writes back: Theory and practice in post-colonial literatures*. Routledge.
- Barman, J., Hébert, Y., & McCaskill, D. (2011). *Indian education in Canada, volume 1: The legacy*. UBC Press.
- Cornelius, C. (1998). *Iroquois corn in a culture-based curriculum: A framework for respectfully teaching about cultures*. State University of New York Press
- Culhane, D. (1998). *The pleasure of the crown: Anthropology, law, and First Nations*. Talonbooks.
- Daigle, M. (2017). Tracing the terrain of Indigenous food sovereignties. *The Journal of Peasant Studies*, 46(2), 297–315. <https://doi.org/10.1080/03066150.2017.1324423>
- Deur, D. (2005). Tending the garden, making the soil: Northwest Coast estuarine gardens as engineered environments. In D. Deur & N.J. Turner (Eds.), *Keeping it living: Traditions of plant use and cultivation on the Northwest Coast of North America* (pp. 296–330). UBC Press.

- Deur, D., & Turner, N.J. (2005). Introduction: Reassessing Indigenous resource management, reassessing the history of an idea. In D. Deur, & N. J. Turner (Eds.), *Keeping it living: Traditions of plant use and cultivation on the Northwest Coast of North America*, (pp. 3–34). UBC Press.
- First Nations Development Institute. (2024). *On the matter of foundation giving: Examining the inequity of private philanthropy's investment in Native communities*. <https://www.firstnations.org/publications/on-the-matter-of-foundation-giving-examining-the-inequity-of-private-philanthropys-investment-in-native-communities/>
- McDonald, J. (2005). Cultivating in the Northwest: Early accounts of Tsimshian horticulture. In D. Deur & N. J. Turner (Eds.), *Keeping it living: Traditions of plant use and cultivation on the Northwest Coast of North America* (pp. 240–273). UBC Press.
- Mihesuah, D. A., & Wilson, A. C. (Eds.). (2004). *Indigenizing the academy: Transforming scholarship and empowering communities*. University of Nebraska Press.
- Monaghan, J. (2013). Settler governmentality and racializing surveillance in Canada's North-West. *Canadian Journal of Sociology*, 38(4), 487–508. <https://doi.org/10.29173/cjs21195>
- Mosby, I. (2013). Administering colonial science: Nutrition research and human biomedical experimentation in Aboriginal communities and residential schools, 1942–1952. *Histoire sociale/Social History*, 46(91), 145–172. <https://doi.org/10.1353/his.2013.0015>
- Partridge, C. (2010). Residential schools: The intergenerational impacts on Aboriginal Peoples. *Native Social Work Journal*, 7, 33–62. <https://laurentian.scholaris.ca/handle/10219/382>
- Pieratos, N. A., Manning, S. S., & Tilsen, N. (2021). Land back: A meta narrative to help Indigenous people show up as movement leaders. *Leadership*, 17(1), 47–61. <https://doi.org/10.1177/1742715020976204>
- Reader, T., & Dew Johnson, T. (2017). Fishing for change: A pedagogy of native food sovereignty. In C. Etmanski (Ed.), *Food leadership: Leadership and adult learning for global food systems transformation* (pp. 37–52). Sense Publishers. https://doi.org/10.1007/978-94-6351-050-9_3
- Reid, J. (2010). The doctrine of discovery and Canadian law. *The Canadian Journal of Native Studies*, 2, 335–359. <https://caid.ca/CanDocDis2010.pdf>
- Rotz, S., & Kepkiewicz, L.W. (2018). Settler colonialism and the (im)possibilities of a national food policy. *Canadian Food Studies/La Revue canadienne des études sur l'alimentation*, 5(3), 248–258. <https://doi.org/10.15353/cfs-rcea.v5i3.275>
- Sheridan, J., & Longboat, R. “He Clears the Sky” D. (2006). The Haudenosaunee imagination and the ecology of the sacred. *Space and Culture*, 9(4), 365–381. <https://doi.org/10.1177/1206331206292503>
- Tuck, E., & Yang, K. W. (2012). Decolonization is not a metaphor. *Decolonization: Indigeneity, Education & Society*, 1(1), 1–40. <https://jps.library.utoronto.ca/index.php/des/article/view/18630>
- Turner, N. J., Deur, D., & Lepofsky, D. (2013). Plant management systems of British Columbia's First Peoples. *BC Studies*, 179, 107–133. <https://doi.org/10.14288/bcs.v0i179.184112>
- Warrior, R. (1999). The Native American scholar: Toward a new intellectual agenda. *Wicazo Sa Review*, 14(2), 46–54. <https://doi.org/10.2307/1409550>