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## Promoting Traditional Foods and Better Health

Exploring Links Between Bison Meat and Reduced Diabetes Rates

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### Indigenous Diabetes Education Project, Broomfield, Colorado

**Physical health and wellness is a traditional value of Native peoples – and a mainstay of their cultural heritage.** The human spirit and physical body are united in the natural world, alongside “all our relations” in the circle of life.

**As many Native tribes were forcibly separated from traditional food sources and the spiritual cycle of the harvest, Native health has suffered.** Too often, foodstuffs found in reservation stores are the familiar high-fat, high-sodium, sugar-larded, low-nutrition products that undermine good health. Diet-related disease rates spiked in many communities and today, Native populations have higher-than-average rates of malnutrition and other poor diet indicators.



**In particular, diabetes is a major health concern in Native communities.** According to the [National Diabetes Information Clearinghouse](#), American Indians and Alaska Natives are, on average, 2.6 times more likely to have diagnosed diabetes than non-Hispanic whites of a similar age, and the clearinghouse believes that available data probably underestimate the true prevalence of diabetes in this population. Moreover, American Indians and Alaska Natives with diabetes have a high incidence of diabetes complications such as eye and kidney disease, cardiovascular disease, and lower extremity amputations.

**Native communities are taking action to reduce diabetes rates by addressing possible food and nutritional risk factors.** On the [Fort Belknap Indian Reservation](#), Native communities are working with public health officials to provide Native-raised, grass-fed bison meat for diabetics living on the reservation, and to monitor the health of participants on a regular basis for two years. The goal is to help determine what impact a more traditional, low-fat, high-protein food source can have on the health of an Indian diabetic.

The Indigenous Diabetes Education Alliance, based in [Broomfield, Colorado](#), will work directly with the tribal bison herd manager, tribal health director, and tribal dietician to ensure that nutritional education and traditional food preparation instructions are available. Through the tribe’s bison herd, bison meat will be distributed to participants and their families, along with information on how to prepare healthy bison dishes and incorporate other lifestyle changes.

**Moreover, improved access to bison meat can begin to restore cultural traditions that respect the centrality of bison to Native cultures of the Northern Plains.** Integrating bison care, feeding and meat production will help connect Native peoples to the healthy habits and traditions of Native forebears.

## Subsistence Plus ... Fresh Vegetables

Greenhouses and Gardens Feed People and Help Keep Them Healthy

### Kenaitze and Louden Tribal Council Programs, Alaska

**For too many Native peoples, fresh fruits or vegetables are a rarity.** High produce prices in remote regions, or a lack of stores that offer a variety of produce, can lead to poor health and limited nutritional options – as well as a chronic isolation from tribal traditions that included a diet rich in fresh fruits and vegetables.

**Diets with limited access to fresh produce contribute to a variety of diet-related health conditions** including diabetes, heart disease, malnutrition, and low birth weights and other negative consequences. Nationwide, the incidence rates of these conditions are higher in Native communities than in the general population.

**Two Native community projects in Alaska are working to reverse these trends.** The Kenaitze Indian Tribe has operated an agriculture program since 1982 – and currently has two commercial-sized, permanent greenhouses for bedding plants, six acres under cultivation, several hoop houses and an on-site market. Working with seniors, local grocery stores, the Women, Infants and Children federal food program, and other partners, the Kenaitze tribe is now providing fresh tomatoes, carrots, peas, beans, squash, cucumbers and raspberries for community consumption. With added irrigation capacity, they can concentrate on enhancing their crop – and increasing production for the local community.



The [Louden Tribal Council](#) in Galena, Alaska, representing 524 Koyukon Athabascan people, is just beginning their greenhouse and gardening initiative. The program will make fresh, locally produced vegetables available to community members. In this isolated village of long harsh winters on the edge of the Arctic tundra, the social discourse of gardening together in a community plot is greatly valued, and gardening skills are passed on informally in this way. The project also has broad community support, including from the local school district, the city council and several private businesses.

## Food as Economic and Cultural Sustenance

Comprehensive Food System Approaches in Native Arizona

### Tohono O'odham Community Action, Sells, Arizona

To establish self-sustaining, comprehensive agricultural economic development programs is a top priority for many of the nation's tribal communities. The [Tohono O'odham Nation](#) is on the leading edge, recognizing that communities must develop comprehensive, healthy, traditional food systems to meet the long-term needs of their people.



The Tohono O'odham can rely on a rich tradition as advanced agricultural peoples. They have lived in the Sonoran Desert of Arizona for thousands of years, depending on the desert for their food. Although many think of the desert as inhospitable for agriculture, the Tohono O'odham traditionally farmed the desert.

However, as U.S. urban centers grew in the Southwest, more water was drained for non-Native people and uses. The Tohono O'odham agricultural heritage – of sophisticated irrigation, hunting, and gathering a wide variety of desert foods – began to wither away.

Today, the Tohono O'odham Nation – on lands nearly the size of Connecticut – is home to nearly 24,000 people. The [Tohono O'odham Community Action](#) project is actively rebuilding the nation's agricultural capacity. The project includes:

- **Starting a 55-acre farm** to increase production of traditional, healthy foods to meet a high level of demand. The farming operation involves land preparation, educational and technical support activities, a farm equipment cooperative, a seed bank to preserve traditional seeds, continued support for home gardens, and a wild food collection program.
- **Expanding food processing ability**, purchasing equipment and training community members to process grains and beans.
- **Expanding and diversifying the marketing of traditional foods** by establishing a governmental food assistance cooperation program; formalizing a relationship with the Indian Health Clinic to purchase traditional foods; allowing schools to purchase farm foods; and organizing farmers markets throughout the reservation.
- **Educating community members** about traditional food production techniques, nutrition, and cultural practices.
- **Revitalizing food system cultural traditions**, such as organizing and sponsoring the rain ceremony, and producing CDs of songs and stories associated with the desert food tradition.

## Combining the Best of Tradition and Technology

Expanding Sustainable Agricultural Systems in the Southwest

Developing Innovations in Navajo Education Inc., Flagstaff, Arizona

The Native American tradition of sustainable and organic agriculture is being reborn in the Southwest deserts that comprise the Navajo Nation. The [Navajo Nation](#) comprises more than 200,000 people on more than 14 million acres of land in Arizona, New Mexico, Colorado and Utah, the largest reservation in the United States. Accustomed to living on dry lands, the Navajo people were expert historically at managing water resources such as the annual storm and flooding seasons.

To improve the economic and nutritional health of the community, the Navajo Agricultural Technology Empowerment Center is leading a major agricultural effort to develop gardens based on Navajo knowledge, while educating community members about traditional growing techniques.

This comprehensive, interdisciplinary agricultural and spiritual project will work across a uniquely large territory and employ both traditional and high-tech approaches, reaching rural communities with the latest information on organic agricultural practices and teaching methods. Program elements include:



- **Construction of 40 new family farms** with dry-land agricultural techniques.
- **A leading drip irrigation system that builds on Navajo knowledge of floodwater management**, enabling cool-weather crops and a wider diversity of crops.
- **An advanced computer software network linking over 110 Navajo chapters** to share information on crop moisture content, soil conditions, seed sources, pest control, irrigation systems, and individual agricultural plans.
- **Education on centuries-old traditions of organic farming**, traditional Navajo culinary practices, food preservation, and organic pest management, with some programs led by tribal elders who remember traditional techniques.
- **Construction of traditional root cellars** for storage of food in winter months.
- **Small farm marketing training using virtual training tools** or through traditional workshops.
- **Shared responsibility and use of heavy gardening equipment** such as tractors.



# Time for the Harvest: *Renewing Native Food Systems*

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## Foods and Folkways

Restoring Indigenous Foods and Cultural Traditions in the Northern Plains

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### Native American Community Board, Lake Andes, South Dakota

**The Yankton Dakota have a long history of incorporating traditional ways with new outreach and opportunities.** Nearly 200 years ago, a young Dakota boy came to the attention of explorer Merriwether Lewis as a future leader of Native peoples. That boy grew to be a respected Yankton chief named Struck by the Ree – a leader who looked out for the traditional needs of his tribe and also partnered with settlers to bring new ways to his people.

Today, the [Yankton Dakota](#), historically a prairie-dwelling branch of the woodland Santee tribes, live on nearly 40,000 acres of land in southeastern South Dakota. They are working to restore that balance between tradition and today's opportunity.

**Due to cultural isolation and reduced agricultural knowledge sharing between generations, many of the Yankton Dakotas' indigenous food sources are becoming difficult to find.** This has resulted in the unavailability of traditional or nutritional foods for consumption, inability to use traditional food in ceremonies, and a lack of traditional food to barter and trade for other goods.

**The Native American Community Board, working in Yankton Dakota country, is launching a multi-pronged effort to expand access to Native foods.** The tribe will:

- Assist tribal members in **preserving traditional practices and indigenous foods** (including chokecherry bushes, wild plums, wild mint, and wild turnips).
- **Provide indigenous plants to grow on community members' land**, in their yards, and within the community.
- Conduct workshops to **instruct people in making traditional food products**, as well as in learning their uses and mastering preservation techniques.
- **Promote traditional food preservation and preparation awards at the annual powwow.**
- **Prevent exploitation of indigenous plant life by non-Yankton Dakota.**

These programs, initiated by and with the community, seek to restore the historic balance of Native control over tribal land and plant assets, and to rebuild a sense of knowledge and pride about traditional food and its uses among the Yankton Dakota.



# Time for the Harvest: *Renewing Native Food Systems*

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## Carrying Traditions into the Future

Strategies for Educating Youth on Traditional Foods and Farming Techniques

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### The Oneida Nation of Wisconsin, Oneida, Wisconsin

The enduring mission of the Oneida is “to sustain a strong Oneida Nation by preserving its heritage through the seventh generation.” Central to this effort is reintroducing Oneida youth to agriculture and food systems, providing job training in food systems, and providing economic opportunity for today’s young Oneida.

For centuries prior to the American Revolution, the Oneida Nation was comprised of powerful, proud and prosperous peoples, living in upstate New York. Their land included lakes and rivers and millions of acres of dense forests. Fishing, hunting and the cultivation of croplands provided enough food to maintain traditional, healthful lives. But following the forced relocation of a large Oneida band to Wisconsin, their agricultural prowess declined. Succeeding generations struggled to provide for their families.

Today’s [Oneida Nation of Wisconsin](#) has launched one of the most expansive Native food system efforts in the country, targeting youth, teaching practical hands-on skills, reintroducing Native traditions, and expanding knowledge about health. The Oneida Community Integrated Food Systems project’s youth-oriented programs include:

- **Increasing youth knowledge about health and diet** through school outreach.
- **Developing a 4-H club to teach agriculture and economics.**
- **Introducing a farmers market to the community grocery store** to enable youth to sell products and gain accounting, cashiering, pricing, and product-rotation job skills.
- **Job training and an instructional curriculum to low-income community youth** to work in and with the program’s centers.

Moreover, the Oneida project integrates farming approaches that respect Native values, such as natural farming techniques and sharing the harvest:

- On the Oneida Nation Farm, which raises nearly 500 steers and buffalo, the beef are given no steroids or growth implants.
- The apple orchard, which now totals more than 4,200 trees and produces 18 kinds of apples including 7 organic varieties, employs techniques to naturally eliminate pests, such as releasing insects on other insects and using chickens to reduce infestation.
- The Oneida Tsyunhe’hkw<sup>^</sup> (pronounced joon-henk-qwa) Center focuses on integrating Oneida practices with holistic processes of sustainable development – such as natural-grazed chicken and cattle and organic gardening – and holistic medicines. The center also instructs people in herbs and holistic health.
- Food Distribution Programs and the Oneida Food Pantry enable the community to reach both federally eligible families and others in need with wholesome healthy foods at affordable prices.

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## Fact Sheet

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A 1999 [United States Department of Agriculture](#) study reported that 22 percent of Native American households are food insecure, with 8.6 percent experiencing hunger.

Food insecurity is closely linked with low household income and poverty. In addition, since 1999, the [Food Assistance and Nutrition Research Program](#), in cooperation with tribal colleges and the [American Indian Studies Program](#) at the University of Arizona, has issued other important findings concerning food and the first Americans:

- The availability of healthful foods is limited.
- Healthy eating is costly and unpopular; exercise is too timely and for many, medically daunting.
- The restoration and preparation of traditional foods has potential for reducing the consumption of “fast foods.”
- While federal food assistance programs have supported well-being, persistent barriers to program reforms include transportation issues, lack of telephones, and the inherent complexity of the federal food delivery system.
- Many Native college students do not have adequate information about nutrition, diet and exercise.
- Though diabetes was essentially unknown among Native Americans in 1912, according to the [Indian Health Service](#), and still “clinically non-existent” as late as 1930, according to the [American Diabetes Association](#), today ADA states that six of every 10 Native Americans are apt to develop diabetes. Desert peoples are particularly afflicted, for instance the [Tohono O’odham](#) of the Sonoran Desert, who report that adult-onset diabetes affects 80 percent of its population.

A community is defined as food secure if all its members have access to nutritionally good, safe, affordable, culturally acceptable food at all times through local non-emergency sources. The food traditions and agricultural holdings of Native tribes and communities afford strong incentives for renewing Native food systems so as to improve food security across Indian Country and the Native Americas.

- Today, according to the United States Congress, almost 47 million of the more than 54 million acres of tribal and individual Indian trust lands are rangeland and cropland, an enormous potential food resource.
- Seventy percent of cropland is leased to non-Indians, and 20 percent of rangeland, reducing Native control of tribal food systems at their source.
- More than 8,000 Native farms operate on reservations, but they produce few crops for consumption by local households.