



“The Official Newsletter of the Inter-Tribal Environmental Council”

ITEC MEMBER TRIBES

Absentee-Shawnee Tribe
Alabama-Coushatta Tribe
Alabama-Quassarte Tribe
Apache Tribe
Caddo Nation
Cherokee Nation
Cheyenne/Arapaho Tribes
Citizen Potawatomi Nation
Comanche Nation
Coushatta Tribe of Louisiana
Delaware Nation
Delaware Tribe
Eastern Shawnee Tribe
Fort Sill Apache Tribe
Iowa Tribe
Jicarilla Apache Nation
Kaw Nation
Kialegee Tribal Town
Kickapoo Tribe
Kiowa Tribe
Miami Tribe
Modoc Tribe
Muscogee (Creek) Nation
Osage Nation
Otoe-Missouria Tribe
Ottawa Tribe
Pawnee Nation
Peoria Tribe
Ponca Tribe
Pueblo of Laguna
Pueblo of Pojoaque
Pueblo of Santa Clara
Pueblo of Taos
Pueblo of Tesuque
Quapaw Nation
Sac & Fox Nation
Seminole Nation
Seneca-Cayuga Nation
Shawnee Tribe
Thlopthlocco Tribal Town
Tonkawa Tribe
Wichita & Affiliated Tribes
Wyandotte Nation
Ysleta del Sur Pueblo
Zuni Tribe

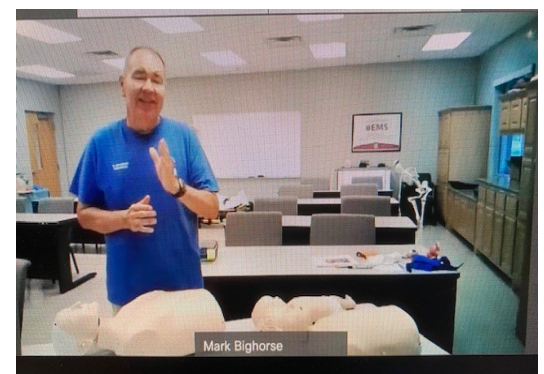
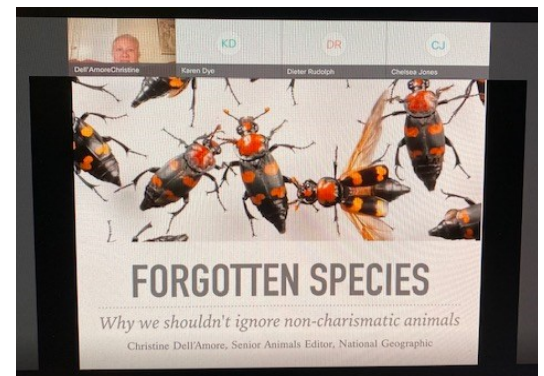
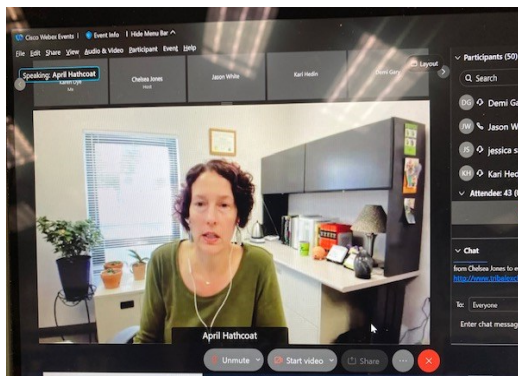
26th Annual ITEC Conference

The 26th Annual Inter-Tribal Environmental Council Conference was held virtually July 26 – August 5, 2021.

The breakout sessions included some of the following: Brownfields, Clean Air, Climate Change, Conservation Efforts, Conservation, E-Enterprise, Environmental Health, Environmental Topics, First Aid, Information Technology, Innovative Technology, Natural Resources, NEPA Resources, Pesticides, Solid Waste/Recycling, Species of Interest, Sustainability/Environmental Preservation, Tribal Projects and Water. With presenters from regional and national tribes, and other government agencies. There were approximately 50 participants in each breakout session from national and regional tribes that participated in the various sessions.

To view the recorded breakout sessions please visit the ITEC YouTube channel at:

https://www.youtube.com/channel/UC42GM_3wppOEPkgFEUj_CgQ





High Tunnel Systems & Eastern Shawnee AG Project

Courtesy of: Kathleen Blanchard, Eastern Shawnee Tribe of Oklahoma

WHAT IS A SEASONAL HIGH TUNNEL?

A High Tunnel System, commonly called a “hoop house” is an increasingly popular conservation practice for farmers. With high tunnel systems, no summer is too short or winter too cold because high tunnels:

- Extend the growing season
- Improve plant quality and soil quality
- Reduce nutrient and pesticide transportation
- Improve air quality through reduced transportation inputs
- Reduce energy use by providing consumers with a source of fresh produce

High tunnels protect plants from severe weather and allow farmers to extend their growing seasons—growing earlier into the spring, later into the fall, and sometimes, year-round. High tunnels prevent direct rainfall from reaching plants, farmers can use precise tools like drip irrigation to efficiently deliver water and nutrients to plants. High tunnels also offer farmers a greater ability to control pest and can even protect plants from pollen and pesticide dirt.

A number of soil health practices can be used in high tunnels, including cover crops and crop rotations, which also prevent erosion, suppress weeds, increase soil water content, and break pest cycles.

Perhaps the best thing about high tunnels is that they help farmers provide their communities with healthy local food for much of the year. This food that requires less energy and transportation inputs.

We have a variety of things being grown in the hoop houses from tomatoes, herbs, squash, okra, and lettuces.

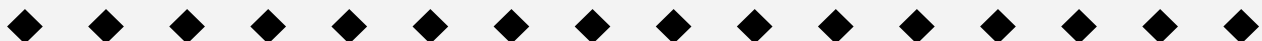
There is a “U-pick-it” patch to the east side of the Hoop house and we have constructed a market building. It’s called “Growing Thyme at the Red Barn.” We plan to market our produce in our storefront.



(We are currently using hydroponics in our hoophouses, this is hydroponic lettuce being grown.)



(herbs)





The Shooting Star | November, 2020 23

A YEAR IN PICTURES | 2019-2020

Coming up the hill



Tomatoes



Installation complete



Lettuce



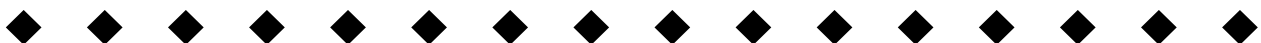
(squash and tomatoes)



(Our storefront)



("U-pick-it" patch)





Osage Nation Steps to Food Security

Courtesy of: Jann Hayman, Osage Nation

The Osage Nation began engaging with agriculture in 2014, with the start of Bird Creek Farm. Through the efforts of the farm, there was outdoor farming, hoop houses, community gardens, and a small indoor aquaponics system. As time progressed, especially during the COVID-19 pandemic, it was apparent the established agricultural program was not meeting the needs of the Osage people. Before the COVID-19 pandemic, much of Osage County was classified as a food desert. The pandemic significantly expounded that problem. The Osage Nation, similar to other tribal nations, experienced a breakdown in food systems with the COVID-19 pandemic. The first significant situation for the Osage Nation was the inability to purchase meat to feed children attending the Wah-Zha-Zhe Early Learning Academies, which are the tribal nation's educational facilities. Situations like this were occurring throughout the Osage Nation's facilities.



Early on, when the Osage Nation first received the CARES Act federal funds to address COVID-19 related issues, Chief Standing Bear called the Director of the Natural Resources Department for recommendations on using funds. The Director quickly stated the biggest need from her perspective was to create the ability to produce food year-round. With this conversation in mind, and also the situations occurring as the Osage Nation sought to acquire meat for their tribal programs, the Osage Nation promptly moved forward with creating food security efforts to bring food to the Indigenous people. The steps toward food security included two avenues: Harvest Land (formerly Bird Creek Farm) and the Butcher House Meats meat processing facility.

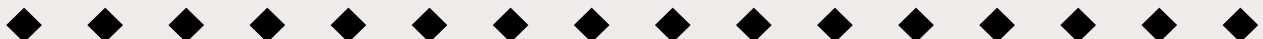
To begin, the Harvest Land facility has substantially increased the amount of food production for the Osage Nation. The facility is located in Pawhuska, Oklahoma and includes a 40,000 square foot greenhouse, a 44,000 square foot program building including a commercial kitchen and a large commercial aquaponics system, a five-acre orchard, and outdoor farming. The orchard includes pawpaws, elderberries, persimmons, sand plums, and a variety of nut trees. The Harvest Land facility was designed to incorporate fruits, vegetables, and protein via the fish in the aquaponics system, as well as a way to prepare those items using the commercial kitchen. The commercial kitchen provides the opportunity to prepare items, such as jams and jellies, while creating the ability to teach Osage citizens these steps on food preparation.



In addition to the food security efforts at Harvest Land, the Butcher House Meats facility was created to address the food systems related to meat. The Butcher House Meats is a 19,000 square foot facility located in Hominy, Oklahoma. It is designed to process bison, cattle, hogs, and seasonal deer. The first slaughter occurred in February 2021 and it has slowly been increasing since that time. The current focus is to meet the meat consumption needs of Osage tribal members, including training tribal members employed at the facility. As the facility moves forward, it has the ability to provide value-added products, such as snack sticks and smoked items.

For the Osage Nation, it was apparent there were significant food system issues within the local communities. Through the CARES Act federal funds, the development of food security systems were created to support the needs of the Osage people. The Osage Nation is proud of these developments and is excited to work with other tribal nations and

constituents who seek to learn from our experiences. If you would like to learn more information or request a tour, please contact Jann Hayman at (918) 287-5531 or jannhayman@osagenation-nsn.gov





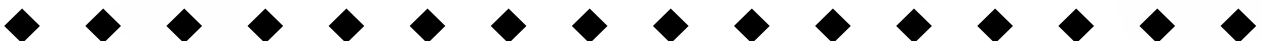


Santa Clara Pueblo E-Waste 2021

Courtesy of: Dino Chavarria, Santa Clara Pueblo

Despite the continued restrictions and health order in place due to the COVID-19 pandemic, the Santa Clara Pueblo Environmental, Procurement and Information Technology Departments collaborated to load, transport and deliver 4,500 pounds of electronic waste to NM Computer Recyclers in Albuquerque. Items transported to be processed included old computers, hard drives, speakers, radios, batteries, printers and damaged servers. Staff worked hard to load the materials, drive 95 miles, then unload the materials according to the process at NM Computer Recyclers.

It is staggering to consider how much e-waste accumulates over a short period of time. Hopefully part of the development in sustainable materials will include investments in longer lasting, sturdy technological devices. NM Computer Recyclers was unable to accept cathode ray tube monitors and televisions so we are still looking for a recycling option for these materials.





Upcoming ITEC Trainings:

Processing Drone Imagery in ArcGIS Pro Training —Virtual, September 22, 2021.

8 Hour HAZWOPER Refresher Training—Virtual, September 23, 2021.

40 Hour HAZWOPER Training— Rescheduled, date to be determined.

Watch for the 2022 Training Questionnaire, it will be sent out in October.

More information about trainings will be sent out at a later date.



For more information about ITEC trainings contact:

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Email: Karen-dye@cherokee.org



Check out ITEC's YouTube Channel:

https://www.youtube.com/channel/UC42GM3wppOEPkgFEUj_CgQ

ITEC on the web

Check out the ITEC webpage for information on upcoming events, training and newsletters.

Please visit us at:

www.itecmembers.org





ITEC NEWS

“The Official Newsletter of the Inter-Tribal Environmental Council”

The Cherokee Nation Environmental Program (CNEP) publishes ITEC News each quarter. The mission statement is to protect the health of Native Americans, their natural resources, and their environment as it relates to air, land and water. To accomplish this mission, ITEC provides technical support, environmental services, and assistance in developing Tribal environmental programs to the member Tribes.

The viewpoints contained in this newsletter are not necessarily those of the USEPA or the CNEP/ITEC. Free and open discussion of all environmentally related issues is strongly encouraged. We also encourage submission of letters, comments, and articles from readers so as to promote a greater awareness among our people about environmental issues and to foster the free exchange of information, technology, and culturally relevant values of Tribal people.

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The *ITEC NEWS* gladly accepts and encourages your Tribal environmental information for upcoming issues and events. If you wish to contribute any articles in the next issue or for questions about this newsletter, please call 1-918-453-5109 or contact Karen Dye at: Karen-dye@cherokee.org.

