

Leopold Conservation Award Application

Nominee:

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Operation Type:Cattle Ranch

1) Conservation Ethic

We purchased our current ranch, which consists of 920 acres, located 3 miles south of Saint Louis, Oklahoma and about 25 miles south of Shawnee, Oklahoma, in May 2006. The land had been severely overgrazed for over 20 years with continuous-type grazing; no cross-fencing, no brush control, no tree removal or maintenance, and several eroded pond dams. Experts from Noble Research Institute (NRI), Natural Resources Conservation Service (NRCS), and Oklahoma Cooperative Extension Service (OCES), determined there was not sufficient grass on the 920 acres to identify what may even grow on this land.

At the recommendation of NRI and NRCS, we let the land sit idle for the first year. During this year, we studied the soil survey maps from the NRCS for the land and the type of grasses that would be best suited for the areas. Our desire was to start, and operate, a stocker cattle operation, but our decisions were made more difficult because we had no idea of what could grow or the value of what would grow. However, we never lost track of the goal of having a sustainable cattle ranch.

During our first year, we started clearing lanes for electric fences on the better soils. However, we did not use dozers or heavy machines. Our intent was to not disturb or further destroy the land. We elected to use a 100 hp skid steer with a Marshal Tree Saw. This allowed us to cut the trees off at ground level so that the roots could continue to keep the land from washing away during the rains. Erosion was a huge issue with this ranch and we did not want to create other erosion issues by clearing and loosening the ground. This was one of the best things we did to control erosion. Tree roots held the ground and, with minimal maintenance of herbicides on the bigger stumps, we were able to reestablish grass in these areas. We had no intentions of plowing the ground, so the trees cut off at ground level or slightly below worked great in getting the lanes for fences cleared.

During this time, we discovered that grasses were growing back in every place we cleared. We planted no crops or grasses in these cleaned areas. However, as the grasses grew, we had to identify the type of grass and the value each provided.

Over the course of the first three years, we cleared approximately 300 acres with the skid steer, enrolled in the NRCS EQIP program for cost share, installed over 20 miles of electric fences and began operating with nearly 300 head of stocker cattle. However, we did not just clear land and add cattle. We took the time to fence out the damaged ponds, creeks and ravines and we did not allow our cattle to enter the areas heavily covered in trees. The sensitive areas with broken terraces were fenced out and repaired and cattle movements were restricted to keep any trails from going up and down the small hills. In addition, we added three ponds to assist with stopping erosion in critical areas of the ranch. We also reworked several of the broken terraces and built a dry dam structure to repair damaged areas.

Our entire goal was to not just have land with cattle but to have land that would support us using cattle to do that. Cattle can be quite destructive to land, but there are things we did, and do, as an operation to prevent them from damaging the land. With cost share assistance from NRCS, we drilled water wells and added pasture watering systems with water hydrants every 300 yards. We haul fresh water to areas

not piped with water. Cattle do not get into the ponds and only graze on cleared maintained pastures of 5 acres or less.

We have grown from a stocker operation to a high intensity cattle operation with over 640 acres in grass production, and over 60 miles of electric fences. We maintain a 169-head cow herd, 150 head of stockers plus our feeder cattle. We are in all sectors of the cattle industry from breeding to retail consumer, and everything in between.

We manage for native grasses only. There are areas of old world bluestems that were planted back in the 1950's, but overall we only manage for the native grasses of Oklahoma. We move our cattle frequently, all by foot, no ATVs or horses. Cattle are grazed on small paddocks not for quantity of grass but for quality of grass. As we worked on the quality of grass, we discovered that the taller the grass left behind, the faster it would regrow. Plus the nutrient content of the grasses were getting better with each year of grazing.

Conservation of resources is a key part of our operation. We looked at the lay of the land when deciding where to install electric fence for each lane. Our goals were to stop run off and to prevent further erosion, plus, restore the trees in key areas so that we could provide shade for cattle and preserve the ground in the areas around the trees. In the beginning, the trees were so thick that they only grew 5 to 6 inches in diameter and were dying. By clearing the brush and smaller trees, we were able to get sun to the ground to grow grass, stop erosion and give the bigger trees the area they needed to be healthy and grow. This was extremely important to reestablishing some grasses in the creek and ravine areas even though we do not graze these areas.

2) Resilience

We, also known as Destiny Ranch, have taken a small parcel of land, 920 acres, and built a viable cattle business enterprise. We don't work in town and raise a few cattle, we are full time cattle producers. Our entire cash flow comes from cattle. It started out as a full year-round stocker operation where we kept 3 groups at a time of 80-100 head in each group, added 200 pounds of gain, and sold them direct to the feed lots. We sold a group each month and purchased a group each month. As time and forage has become available, we needed some larger animals to assist with our land maintenance. The larger animals could better use the lower quality grasses during the summer and winter, so we added a cow herd. The calves from these cows were added to the stocker program in the first 2 years. In late 2015, we decided to add a fed cattle program to the ranch and take our cow calf operation all the way to retail beef sales in town.

We currently have 100 head of commercial Hereford cows bred to Angus bulls producing calves designated for our retail beef sales, plus, we sell black baldy breeding heifers from the commercial herd. We have our own labelled beef and sell beef by the pound in Norman, Shawnee, Ada and at the ranch. We also maintain a registered polled Hereford herd of 69 head for replacement heifers and bulls.

Having diversity allows us to have a little more flexibility than normal. If the markets fall, we can sell packaged beef retail. If we have heifers not selling, due to the cattle market cycle, we have established an end point for everything we raise. There is still a need to sell larger groups off the ranch, but we are not totally dependent on just selling in the sale barn or to the feed lot sectors. Having a small operation, we see the need to be diverse and flexible to meet the market conditions and seasons.

We not only promote our beef, but we promote how we raise our beef and what we do to protect the land and natural resources. Each class of cattle utilize a different type of forage. With this diversity built into our cow herd, we have the ability to best use the forages to maintain our land, prevent erosion and keep unwanted plant species from crowding out the grasses.

In addition to the resilience built into our classes of cattle and marketing, we have weather resilience built in to native grass grazing system. The properly managed, tall grass, native pastures have deep root systems that help withstand weather extremes. This was evident in the drought of 2011-2012 when the ranch had excess grass and the neighbors had none. It was also evident in the flood of 2015 when the grass and grass roots were able to support the cattle from bogging and recover quickly after grazing.

3) Leadership and Communications

Destiny Ranch is highly involved with teaching and demonstrating to others the importance and value of grazing management and we hold seminars at the ranch each year. We are members of the Oklahoma Cattlemen's Association and William was the president of the Pottawatomie cattlemen for 3 years and is currently the south central district representative for the Oklahoma Cattlemen's association. William and Karen are also members of the NRI Producer Relations grazing lands strategic group, NRI Producer Relations stocker cattle strategic group and the Oklahoma Grazing Lands Coalition.

Destiny Ranch has been featured in articles in NRI Legacy Magazine "Fulfilling Their Destiny" and Great Plains Living "Fields of Dreams" in 2013, The Journal Record "New rules on the range" in 2014, Eniday "A weapon against climate change" in 2017, and also the Oklahoma Cowman and The Livestock Weekly. William was the author of a feature article "Good Grass" in Great Plains Living in 2017. In addition we were recognized as the Agribusiness of the year for Pottawatomie County and Shawnee, Oklahoma in 2017.

Each year, since 2011, we have been involved as speakers or hosts of education events. We started by speaking at an NRI grazing workshop in September, 2011. Since then we have held seminars on the ranch, with assistance from NRI and others, for grazing practices, growing native grasses and caring for the land. In 2014, we host the NRI Spring Grazing Workshop. In 2015, we held a fall grazing clinic at the ranch. William was a speaker at the 6th National Grazing Lands Conference in Grapevine, Texas in 2015. In 2016, we were speakers to a group of NRCS agents from across the US at the NRI Working Effectively with Livestock Producers workshop. In 2017, we held a seminar at the ranch, with the NRCS and Konawa conservation district, for soil health, with over 70 in attendance. Additionally in 2017, Pottawatomie County Extension and OCES assisted us with a seminar on The Value of Reserve Forage for the Pasture Grazing Tour and Marketing Education for the Master Cattleman program with 92 in attendance.

We also educate the public and consumers about sustainable beef production at our booth at the farmers markets and county fairs, on our website www.destinyranch.org and on social media on our Face Book page www.facebook.com/Destiny-Ranch-240227896013032/

4) Innovation and Adaptability

In the early part of the ranch development, we focused on finding areas we might be able to grow grass and produce beef. However, it was more than just cattle and grass. We needed to make a living from our cattle and land, but in the early start we were spending more on feeds than the cattle would earn. We started experimenting with different types of grazing with smaller and bigger cattle, heifers vs steers and this list goes on. What we learned was that different classes of cattle performed better on the grasses we had established and, as the ground had higher intensity of grazing, the protein and nutrients were increasing more rapidly each year.

In 2011 we had a severe drought in the area. However, in 2010, we had started experimenting with mob grazing or high intensity grazing with different classes of cattle. We don't put all our cattle in one big group and graze. We sort our cattle by size and type and put into uniform groups. For example, we put 40 cows in one group and have several groups of cows grazing different areas. Our stocker cattle are the same. We put up to 100 head of stockers in a group and they graze various areas as a single group. Steers and heifers are separated. The breeding season is 45 days and allows us to better match calving season to the forage plus we have larger groups of similar size calves.

In August of 2010, we fenced off 7-one acre paddocks and grazed 60 head of 650 pound heifers in these paddocks for 24 hours in each paddock. After the 7 days, the area was not grazed again until 2011. The drought started in early 2011 and this test area was incredibly green and had grass over 2 feet tall. It was in the spring of 2011 after seeing the results of the 7 acre test that we decided to do 1 acre tract grazing for all of the ranches 640 grazable acres. The experiment was difficult, but the end results were awesome to say the least. From that time on, we have never changed our grazing practices. By grazing one acre paddocks, we are able to put sufficient nutrients back in the soils, grow an incredible amount of grass (up to 5000 pounds per acre) and stop the feeding of commercial feeds on a large scale. During the drought of 2011 and 2012, we added 100 head of cows to complement our stocker operation and to this day we still graze small paddocks.

We adapted to the drought from the necessity of needing to grow more beef with less input feed costs. During this same time, NRI had 30 test plots on the ranch where we were doing fertilizer and herbicide testing to determine if it was economically feasible to fertilize native grass pastures. After 5 years of testing with various amounts of rain, it was determined that fertilizer would not increase grass production. During this time we had not used fertilizers, but had continued to do grass sampling and soil testing in various areas of the ranch. We discovered that our high intensity grazing was adding nutrients to the land, which allowed us to grow more grass, which produced more beef per acre.

Another adaptation we had to overcome was the severe rains that come in south central Oklahoma. Cattle and land with rain was not a good combination. The rain is needed to grow the grass but the heavy rains, and continuous rains in 2015, were destroying huge areas of land. The ranch developed a rain plan in the early stages and this plan has been one our best strategies in protecting our land. There are safe areas for our cattle during these heavy rain events. It takes some planning, but with the long range weather forecasting, we can plan for these storms and can move our cattle to areas with gentle slopes and some sandy conditions plus have access for us to care for the cattle. The main concern is to not allow the cattle to mud up a field or be trapped in an area that can cause more damage or harm to the environment and the cattle. We always maintain a retreat area for groups of cattle. We attempt to rotate cattle to and from these safe areas during the grazing season and keep a good forage base coming into the spring and fall knowing it will rain. It is all about having a plan and protecting what we have established.

While locally selling retail cuts of beef is not a new concept, it does require innovation and adaptability in a ranching system to successfully implement. Whether it is shifting certain classes of cattle to a different marketing endpoint or being able to balance availability of more popular cuts with supply of the ones less sought after, the constantly changing dynamics, exacerbated by continually having to plan two years into the future, brings new opportunities to innovate and adapt every single day.

5) Ecological Community

We have built the entire ranching operation around the environment we live in. This ranch had no wild animals or wild flowers evident in 2006. Our operation, by fencing out the trees along the creeks and ravines, protecting the ponds, and our intensive grazing practices, have allowed the grasses to flourish, not only for our cattle, but for the wildlife on the ranch. Now we have several coveys of quail, barred owls, dove, ducks and cranes on a seasonal basis, rabbits, squirrels, skunks, armadillos, deer, bobcats and coyotes. All of which are interesting, to say the least, but we have also discovered the value of having the different species. Each species takes care of itself and has no real effect on our cattle operation, the larger animals prey on the smaller species and we have never had any incidences of predator animals chasing or causing problems with our cattle herd.

Using the smaller paddocks and maintaining a good forage base on the ground we have stopped any soil erosion, our ponds have cleared up and are no longer muddy looking, and grasses stay green longer during the season. In addition to the grasses, we now have plant species beneficial for wildlife with wild flowers and specific forbs important to these various birds and wildlife. These different areas, where we

fenced out and do not allow cattle, have a special purpose and flourish with other species of plants important to the wildlife.

One of the most beautiful things about managing native grass ecosystems is that they are not dependent on fertilizer and herbicide like many introduced species are. This nearly eliminates the need for synthetic pesticides and fertilizers. While we are not against modern agricultural inputs, we see any opportunity we in agriculture can take to reduce these in the environment as a good thing for everybody.

Our grazing management allows our soil to soak up rainfall, often coming in extreme events, like a sponge, which reduces downstream flooding. This also prevents soil from leaving the property and going downstream to clog streams and lakes. If soil isn't leaving the ranch, we know that soil nutrients aren't leaving the ranch either. This is good for the ranch but also the environment and everyone else in Oklahoma who enjoys clean surface water.

6) Additional Information

Destiny Ranch is highly involved with teaching and demonstrating to others the importance and value of grazing management.

William has been guest speaker at the Cattle Raisers Convention in Fort Worth, Texas.

Destiny Ranch had the honor of being requested by NRI to host Dr. Wayne Honeycutt, Deputy Chief for Science and Technology with USDA-NRCS in Washington, DC, and 12 USDA range and soil scientists from various regions around the United States at the ranch to demonstrate the effects of rotational grazing on the soil health.

William served on a panel for NRI and the Foundation for Food and Agriculture (FFAR) as a producer for Assessing and Managing for Soil Health on Rangelands and Pasture Lands.

One of our greatest challenges is to be able to communicate to our fellow producers the need to respect the land and natural resources, finding time and methods to demonstrate why our grasses grow during drought and how we prevent serious erosion during the heavy rains. That is why we have devoted so much effort to speaking and teaching and it has been some of the most rewarding work we have done.

- 1) I **William Payne** agree to be a nominee for the Leopold Conservation Award.
- 2) I Manage and/or own the property described in this application.
- 3) The agricultural operation described in this application is in compliance with all applicable regulations, and provides a positive example of environmental stewardship.
- 4) I understand I may be asked to be available for communications/media opportunities to promote the message of voluntary private lands and conservations.
- 5) I understand a video may be produced featuring my agricultural operation, which will require my participation.

Signature:
