



All About Threemile Canyon Farms

Threemile Canyon Farms (TCF) is a fully integrated farm with modern crop and dairy components that create platforms for growing high quality food and value-added forage products. TCF contributes significantly to Oregon's economy and provides meaningful jobs in our rural communities. TCF's business model is based on a "Closed Loop" system of sustainable agriculture that optimizes resource use with minimal waste. TCF applies innovative technologies and follows best management practices to optimize animal welfare, promote workforce opportunities, and preserve/protect natural resources and wildlife habitat.

TCF Business Model at-a-Glance

- Our closed loop system begins with 300,000 tons of potatoes produced annually, which are processed off-site. The waste — peels and culls — is returned to the farm and recycled as dairy feed.
- We grow alfalfa, corn, and other feed crops to provide a balanced ration for our dairy cattle.
- Our sustainable farming ethic combines crop and milk production. As a result, nutrient-rich dairy manure is recycled into natural fertilizer and compost that enhances the soil and feeds the crops, efficiently producing top-quality products.
- Dairy manure provides a low-cost source of nutrient-rich fertilizer and compost, allowing us to substantially reduce the use of external inputs (commercial fertilizers) and increase the production of certified organic vegetables and grains.
- Our digester extracts methane gas from dairy manure to improve air quality and produce high-value fuel.
- We provide value for our customers by minimizing waste, costs, and uncertainties through vertical integration of our operations.
- We provide specialty markets and processors an increasing variety of certified organically grown vegetables and grains at competitive prices.
- We ensure produce quality through third-party certification including United States Department of Agriculture (USDA) Good Agricultural Practices (GAP) program (includes food safety and water quality), United States Food and Drug Administration (milk quality), and Oregon Department of Agriculture (certification of organic crops and fields).
- We use an extensive WiFi/Fiber Optic system to guide precision irrigation, and computer-based quality control and traceability for all crop and milk production.
- We designed, built, and operate a customized zero-discharge waste-management system with recycled flush water to clean cow barns.
- We apply the manure to all our organic fields, and some of our conventional fields, at agronomic rates to minimize the use of traditional manufactured inputs.
- We voluntarily surrendered some of our Columbia River water rights to protect the region's in-stream water flows.
- We set aside 23,000 acres, nearly a quarter of the farm, as a conservation area to protect upland habitat for sensitive species. The conservation area is managed under a "Multi-Species Candidate Conservation Agreement with Assurances" (MSCCAA) under a 25-year permit with US Fish & Wildlife. TMCF partnered with The Nature Conservancy, Oregon Fish and Wildlife, and PGE as signatories to the MSCCAA.



Farm Statistics

- 93,000 acres
- Approximately 145 square miles
- 23,000 acres in conservation area
- 39,500 acres of irrigated farm land
- 33,000 milk cows
- 30,000 young stock
- 2 million pounds of milk produced daily
- 27 milk tankers shipped daily

People

- 300 permanent full-time employees, with approximately 200 additional seasonal workers annually.
- Farm and livestock hourly employees under union agreement since July 2007
 - ✓ Current contract through June 2019
 - ✓ Allows for employee advancement
 - ✓ Allows for management flexibility
 - ✓ Health and welfare plan
- Internship Program. TCF has a strong commitment to assist young people in preparing and developing for careers as agricultural professionals. Our Internship program provides scholarship aid and help guiding young farmers into skilled career positions in diverse fields such as agronomy, animal science, nutrition, crop science, and agricultural economics.

Products

- Milk production for iconic Oregon companies.
- Organic Farming and supplying local markets with organic vegetables and grains for livestock businesses.
- Feeding the World – over 50% of Columbia Basin potatoes are exported and the number is growing.

Oregon Economic and Community Support

- TCF is the third largest property tax contributor in Morrow County, totaling over \$2 million annually.
- Between 2008 and 2016, the average Morrow County wage climbed 47 percent to \$52,782, beating the statewide average of \$48,847 and ranking third behind only Washington and Multnomah counties.
- TCF purchases needed supplies and services through local area businesses, whenever possible.
- Community Support -- TCF donates cows every month to Farmers Ending Hunger. We increased our monthly donation to approximately 8,000 lbs. of ground beef each month. Farmers Ending Hunger helps with the processing and distribution to different charitable organizations (including the Oregon Food Bank) to provide necessary proteins for Oregonians in need.
- TCF raw material annual sales translate to between \$600 - \$900 million in economic activity through the various food and foodservice channels ultimately reaching consumers.



Threemile Canyon Farms Record of Environmental Stewardship

Threemile Canyon Farms (TCF) is a fully integrated farm operating on a “Closed Loop” system of sustainable agriculture that optimizes resource use with minimal waste. The dairy and crop farms constructively use everything we create, from crop residues to dairy manure.

Renewable Energy

Methane Digester: TCF’s methane digester powers approximately 1/3 of annual energy for farm operations while capturing 60,000 tons of carbon annually.

Wind Turbines: Wind turbines in operation on TCF deliver a highly desired renewable energy resource into our region's power grid. TCF continually develops renewable energy projects that take advantage of Oregon's wind resources and the farm's proximity to transmission lines.

Renewable Natural Gas: TCF’s methane digester will begin providing pipeline quality gas for Renewable Natural Gas (RNG) transportation fuel beginning in the Fall of 2019.

Solar Power: TCF is working with a renewable energy company on a solar development project. The anticipated project completion date is sometime in 2022-23.

Environmental Stewardship

TCF’s “Multi-Species Candidate Conservation Agreement with Assurances” (MSCCAA) created in 2000 is considered a national model for voluntary conservation and species protection. The agreement secures 25 years of wildlife conservation area benefits on nearly a quarter of the TCF farm, or 23,000 acres. This is a formal agreement between the U.S. Fish & Wildlife Service, TCF, the Oregon Department of Fish and Wildlife, Portland General Electric, and The Nature Conservancy to address conservation needs of species that are candidates for protection under the Endangered Species Act.

Water Conservation

High Tech Irrigation: TCF’s high-tech irrigation system and use of natural soil improvement methods minimizes our use of water resources. Precision, central-pivot irrigation systems minimize water lost to evaporation or over-watering. State-of-the-art wireless computer network monitors allow us to spot and repair leaks immediately.



Zero Discharge: TCF strictly adheres to a zero-discharge requirement, so dairy waste never enters streams or groundwater sources. TCF recycles and reuses all non-potable water.

Green Water: TCF collects water used to flush dairy waste in lined settling lagoons on the farm and injects the filtered organic liquids into the mainline irrigation system where it's applied at agronomic rates while naturally fertilizing growing crops. TCF can apply this green-water on a circle by circle basis.

Precision Agriculture

GPS: TCF has reduced field passes by over 50% by implementing Global Positioning System (GPS) auto-steering, reducing overlap, unnecessary tillage, and fuel consumption. New tillage equipment allows for single pass seedbed preparation which reduces compaction and maximizes nutrient and water utilization.

Strip Tilling: TCF uses strip tilling practices with GPS equipment to prevent top soil erosion and minimize fuel usage. Strip tilling also helps decrease top soil erosion and prevent wind damage to our corn crop.

Crop Management: TCF uses cover crops to mitigate disease and pest pressure, and naturally help restore soil health. Cover crops can reduce or replace some conventional crop inputs. TCF has extended its crop rotation schedule from the recommended one-in-three-years cycle to one-in-four-years, resulting in fewer problems with disease and pests, and reduced use of crop protectants.

Species Conservation

The MSCCAA conservation area protects Columbia Basin grassland and several wildlife species reliant on the habitat, particularly four key species whose habitat has been shrinking: Washington Ground Squirrel, Ferruginous Hawk, Loggerhead Shrike, and Sage sparrow. It also helps chinook and Snake River sockeye salmon, steelhead trout, the white-tailed jackrabbit, Swainson's hawk, Western burrowing owl, grasshopper sparrow, long-billed curlew, Northern sagebrush lizard, two species of bitterbrush, two species of sagebrush, and three different grasses.

Our work with the Nature Conservancy continues to serve as a national model for voluntary conservation efforts.



Air Quality

TCF exceeds compliance with air quality best management for dairy operations. According to the Oregon Department of Agriculture (which evaluated air emission mitigation best management practices on TCF in 2017), TCF is exceeding compliance with air quality programs in Oregon's neighboring states of Idaho and Washington. TCF has been recognized by the Oregon DEQ for its continuous adaptation of Best Management Practices - notably the development of a methane digester, the sustainable application of manure on our farmland, and optimizing waste management lagoon storage times to reduce ammonia emissions.

Climate Change and Carbon Policy

TCF's leadership is actively involved in supporting progressive state policies on Climate Change and Carbon Policy. TCF supports the State's carbon reduction and renewable energy policies, along with its partner, Tillamook Creamery, to find the best solution for Oregon.

