



EXECUTIVE SUMMARY

About McCarty Family Farms

More than 100 years ago, the McCarty family started and ended every day milking cows by hand in a small barn without electricity in northeast Pennsylvania. Four generations later, there are four dairies comprising McCarty Family Farms: three in Kansas and one in Nebraska. In 2012, the McCartys entered into a business partnership with Danone North America to directly supply milk to make some of its Dannon yogurts. This relationship allows the McCartys to target conservation practices on their farms to meet the specific needs of Danone's customers. This executive summary is a consolidation of findings for all four farm locations.

Quantifying the Impact of Actual Farm Practices

The benefits were determined through EcoPractices' unique process that is able to pinpoint the influence of specific agricultural practices. While agricultural practices have progressed to better care for natural resources, the ability to quantify the influence these practices have on sustainability has not kept pace. The McCarty family seeks to put evidence-based measurements to its farm practices. Having such data brings more depth to decision-making. Short- and long-term goals can be based upon more meaningful information.



5,126 gallons of fuel saved in 2018.

McCarty's **average haul** to its processing plant is **63 miles**.



The **national average** distance to a processing plant is **275 miles**.

4 Dairies **13,490 Acres** from **145 Fields**

MCCARTY FAMILY FARMS MILK PROCESSING INPUTS AND OUTPUTS



Over **28,137,000 gallons** of raw milk is processed from the four McCarty dairy farms in 2018.



Raw milk from the Rexford dairy is piped 100 feet from the milking parlor to the plant. For the three additional McCarty dairies, raw milk is trucked to the Rexford plant for processing.

Three end products from processing annually:



6.9 million gallons of condensed skim milk

which are trucked to the Dannon yogurt plants.



2.3 million gallons of pasteurized heavy cream

which are trucked to a plant and made into butter.



19.5 million gallons of water

from the condensing plant for reuse on the Rexford farm.

ENVIRONMENTAL BENEFITS FROM WATER MANAGEMENT



During 2018, McCarty Family Farms saved and reused:*



158.2 million gallons of water captured for reuse from milk condensing plant and plate chiller water.



This equates to **433,591 gallons every day**.



This is the amount of water in almost **4,336 average-sized bathtubs filled to the brim everyday**.



473.7 million gallons of water saved from the redesign of barn flush systems, removal of towel washing, and use of lagoon water for crop irrigation; which all reduce the need to use additional fresh water.

The farm's water conservation efforts **saved 631.9 million gallons of Ogallala Aquifer** ground water total, which equates to **956 Olympic-sized swimming pools**.



37 wildlife boxes protect susceptible species



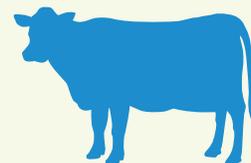
28 soil moisture probes were in place to reduce excessive water use



25 acres of native plants for biodiversity and pollinators



TOTAL COWS
11,972



BENEFITS FROM ANIMAL CARE

10,135 Dairy cows producing milk

10.25 gallons of milk produced per cow per day

16% above the National Average milk production

FARM LOCATIONS



ECO PRACTICES
Recognizing Responsibility

An Evaluation of Actual Performance by
EcoPractices.com
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ENVIRONMENTAL BENEFITS FROM SOIL PRACTICES



Because of the soil practices at all four McCarty Family Farms as well as neighboring fields that received manure fertilizer and/or sourced feed to the dairies during 2018, totaling over 13,490 acres, significant environmental benefits resulted.



2,581 US tons reduction of carbon dioxide equivalent, which is the same as



501 fewer passenger cars on the road each year



or **13 rail cars of coal** saved from being burned



or **2,746 acres of US forest** that sequester CO₂e a year



742 US tons of carbon sequestered



49,491 US tons of soil saved instead of being lost to erosion, which is the same as



3,093 dump trucks of soil

CARBON DIOXIDE REDUCTION BENEFITS

During 2018, everyday operations at all four McCarty Family Farms*:



reduced its carbon dioxide output by **475,562 US tons** which is equivalent to



92,342 average passenger cars off the road for a year



Average yearly energy use by **46,578 American homes**



or almost **1,225 rail cars of coal** saved from being burned

EcoPractices has a signed Statement of Accuracy declaration on file for each On-Farm Sustainability Practices Report. This summary report is an aggregate of results from Danone Soil Health Program participants reports.

* EcoPractices estimates an environmental impact value for reducing greenhouse gas emissions, reducing soil erosion, and reducing nutrient loss due to reduced leaching. These estimates adhere to processes that are documented by the Natural Resources Conservation Service Technical Guides and publications from the Environmental Protection Agency. These environmental impact values are tailored to a specific location and participant's operation or project. Models used are supported by USDA, NRCS, other government agencies, and major universities. Greenhouse Gas emissions and carbon sequestration potential were predicted using the COMET-Farm Application Program Interface 2019. The COMET-Farm tool was developed for the USDA Natural Resource Conservation Service by the Paustian Research Group, Natural Resource Ecology Laboratory at Colorado State University, Available at www.comet-farm.com.

** EcoPractices estimates an additional environmental impact for edge of field practices utilizing the data referenced from the Iowa State Nutrient Reduction Strategy by conservation practice based on whole field impact scale.

This summary must not be edited or altered in any way without the involvement and consent of EcoPractices.