

# DIRECT ASSISTANCE PROGRAM



## CASE STUDY

### NYSP21 Performs Assessment of Wastewater Minimization Opportunities for Argyle Cheese Factory LLC

Argyle Cheese Factory LLC (Argyle Cheese) is a dairy manufacturer located on a farmstead in Argyle, New York. The company produces high quality yogurts, buttermilk, and artisan cheeses. Argyle Cheese is the first in the area to offer yogurt in a recyclable, returnable glass container.

#### Challenge

In an effort to expand their operations, Argyle Cheese has decided to move to a more structured facility with state-of-the-art processing and cleaning equipment. The move is expected to increase wastewater amounts from 3,000 GPW (gallons per week) to approximately 4,600 GPW and potentially as high as 20,700 GPW. As a result, Argyle Cheese has expressed concern over the increased amounts of wastewater that would be generated, especially with respect to whey.

By seeking support from the New York State Pollution Prevention Institute (NYSP21), Argyle Cheese wanted to identify more efficient ways to manage their waste and wastewater.

#### Solution

NYSP21 conducted an on-site assessment to better understand the operation of their facility and identify process improvements and best practices related to water use and wastewater management. Additionally, NYSP21 evaluated the wastewater and whey disposal options for Argyle Cheese. Once the options were evaluated to improve processes, an economic analysis was initiated to determine feasibility.

#### Results

As Argyle Cheese prepares to move into their new production facility, NYSP21 has identified opportunities to reduce water use and wastewater volumes, divert whey to various re-purposing outlets, and save the company money. Some of these reduction opportunities include:

- Low flow manual spray nozzles for hose spray-down cleaning
- Clean-in-place system to control tank and vat cleaning processes
- Low flow spray balls in the tanks for clean-in-place cleaning
- Switching from manual clean-out-of-place washing to automatic clean-out-of-place machine
- Send whey waste to Glens Falls wastewater treatment for seasonal nitrate wastewater treatment of Ames Goldsmith high nitrate waste

While additional information required to complete the economic analysis is not yet available (specific details not known until start-up), Argyle Cheese would certainly realize water and wastewater costs savings with implementation of any of the identified options above. NYSP21 can assist Argyle Cheese with implementation efforts.

#### CHALLENGE

- Argyle Cheese wanted to identify more efficient ways to manage their waste and wastewater

#### SOLUTION

- NYSP21 performed an on-site assessment to better understand the operation of their facility and identify process improvements and best practices related to water use and wastewater management

#### RESULTS

- NYSP21 identified opportunities to reduce water use and wastewater volumes, divert whey to various re-purposing outlets, and save the company money



## NYSP21 PARTNERS



New York Manufacturing Extension Partnership

Funding provided by the Environmental Protection Fund as administered by the New York State Department of Environmental Conservation.

© 2018 Rochester Institute of Technology  
Any opinions, results, findings, and/or interpretations of data contained herein are the responsibility of Rochester Institute of Technology and its NYS Pollution Prevention Institute and do not represent the opinions, interpretation or policy of the State.

For more information please contact us:

111 Lomb Memorial Drive, Bldg. 78  
Rochester, NY 14623

Tel: 585-475-2512  
Web: nysp2i.rit.edu  
E-mail: nysp2i@rit.edu

