

AWARD-WINNING

2020
U.S. Dairy
Sustainability
Award for
**Outstanding
Community
Impact**

SDI-E

Subsurface Drip Irrigation
For Dairy Effluent Water
Application

TURNING WASTE INTO VALUE

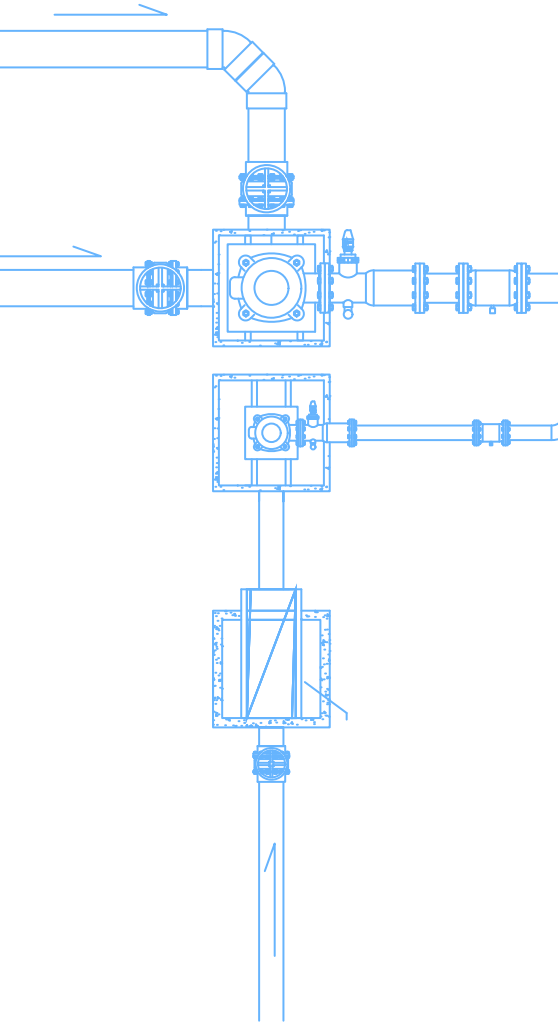
A Circular Economy Model
Driving Sustainability in
Dairy Manure Management

SUSTAINABLE
MANURE
MANAGEMENT
SOLUTION



SDI-E

An innovative subsurface drip system that utilizes advanced filtration and proprietary, patent-pending technology developed by Netafim to blend dairy wastewater with fresh water enabling consistent and reliable application of dairy effluent as a nutrient-rich fertilizer. This process not only re-uses water, but also recycles manure as a natural crop nutrient and soil builder, reducing the need for commercial fertilizer.



To learn more about SDI-E,
visit netafimusa.com/effluent.

Turning Waste Into Value **BENEFITS**

↑	Increased crop uniformity and yields	With SDI, water and nutrients are used more efficiently reducing input costs, producing a more uniform crop and higher yields.
↑	Increased water use efficiency	Water loss through evaporation, runoff and deep percolation are virtually eliminated.
↓	Reduced need for scarce water resources	Allows Dairy Farmers the ability to weather extreme drought
↓	Reduced risk of polluting water bodies	Reduced nutrient use avoids polluting water supplies
↓	Reduced need for synthetic fertilizer	Dairy Farmers save by utilizing the already available organic on-farm nutrients.
↓	Reduced greenhouse gas emissions	Studies show approximately 70-90% fewer greenhouse gases were released, when dairy effluent water was applied through an SDI system.

Project Partners



DE JAGER
DAIRY

MCREE
DAIRY

MAKING AN IMPACT

Precision Blending Control System

TECHNOLOGY

(US Patent No. 10143130)

Netafim's patented system precisely blends the right ratio of effluent and fresh water for maximum nutrient uptake reducing the need for synthetic fertilizers to grow feed crops. Unique system features of our SDI-E system include:



Electronically
Actuated
Valve



Controller with
EC Capable
Logic



Doubled
Filtration
Capacity



2 VFD Pumps

Key Factors

SUCCESS

**5 Cows to 1
Acre Ratio** for
effective nutrient
management

The use of **two
lagoons or
settling ponds**
to help filter the
effluent water

**Netafim's
patented
blending controls**
for fresh/effluent
water blending

The use of
**sprinklers or
flood irrigation**
for germination
then transition
to SDI

Optimized and
**engineered
effluent water
intake**

Operations
focus on **dripline
maintenance**

Pilot Results

SUMMARY



YIELD

Tons Yield/Acre

2.57%



WATER USE EFFICIENCY

Tons Yield/Acre/Inch of Water

38.13%

WATER APPLIED

Inch of Water Per Acre

-35.16%



NITROGEN USE EFFICIENCY

Tons Yield/Acre/lbs of Nitrogen

47.22%

NITROGEN APPLIED

lbs N Applied Per Acre

-44.78%

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Funding

SOLUTIONS

EQUIP NRCS

Contact your local NRCS
office for an application.

SWEEP CDFA

Contact your local CDFA
office for an application.

NETAFIM FINANCIAL SOLUTIONS

Visit netafimusa.com/financial-solutions

System Design

INSTALLATION

For system design your **Authorized Netafim Digital Farming Dealer**, versed in the local aspects of crop irrigation with SDI, will help determine what system configuration is best.



