

SUBSURFACE DRIP IRRIGATION FOR DAIRY EFFLUENT WATER APPLICATION

WHAT IS THE SYSTEM?

A modified drip irrigation system that uses manure nutrients instead of synthetic fertilizers.

Allows dairies to grow feed crops with less environmental impacts compared to flood irrigation and conventional drip systems.



GROWER BENEFITS

- ✓ Increased yields
- ✓ Reduced need for scarce water resources
- ✓ Reduced risk of polluting waterbodies
- ✓ Increased water use efficiency
- ✓ Reduces fertilizer expense with on-farm produced nutrients (effluent)

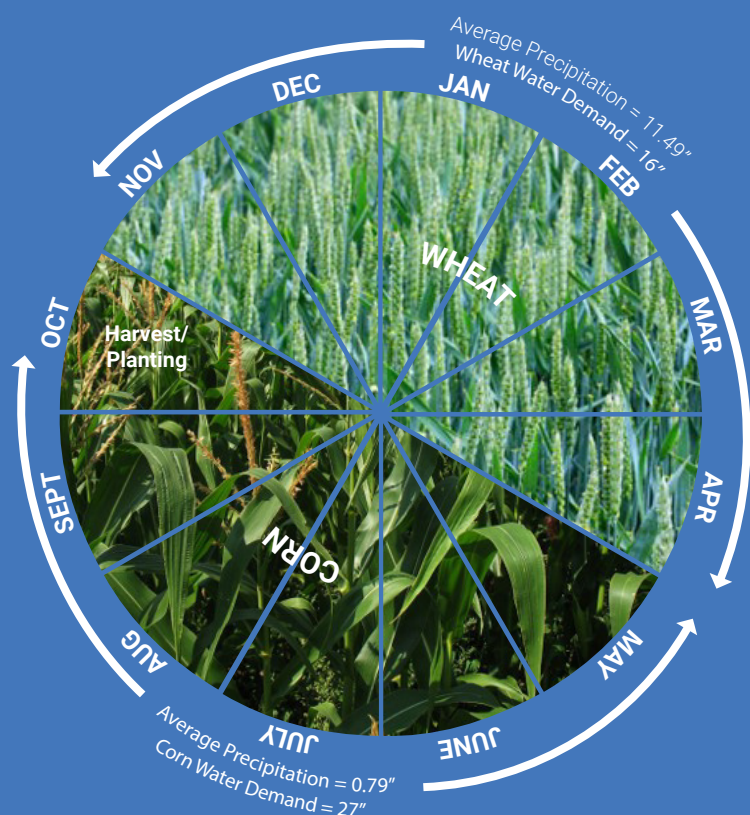


CLIMATE BENEFITS

- ✓ Reduced water use allows farmers to weather extreme droughts
- ✓ Reduced nutrient use avoids polluting water supplies
- ✓ 70-90% Reductions in greenhouse gas emissions



CROP ROTATION & WATER



KEYS TO SUCCESS

- Well engineered effluent water intake
- Proper blending controls for fresh/effluent water blending
- Operations focus on dripline maintenance
- The use of sprinklers or flood irrigation for germination then transition to SDI
- Reduction of tillage in between and during crop production
- The use of two lagoons or settling ponds to help filter the effluent water



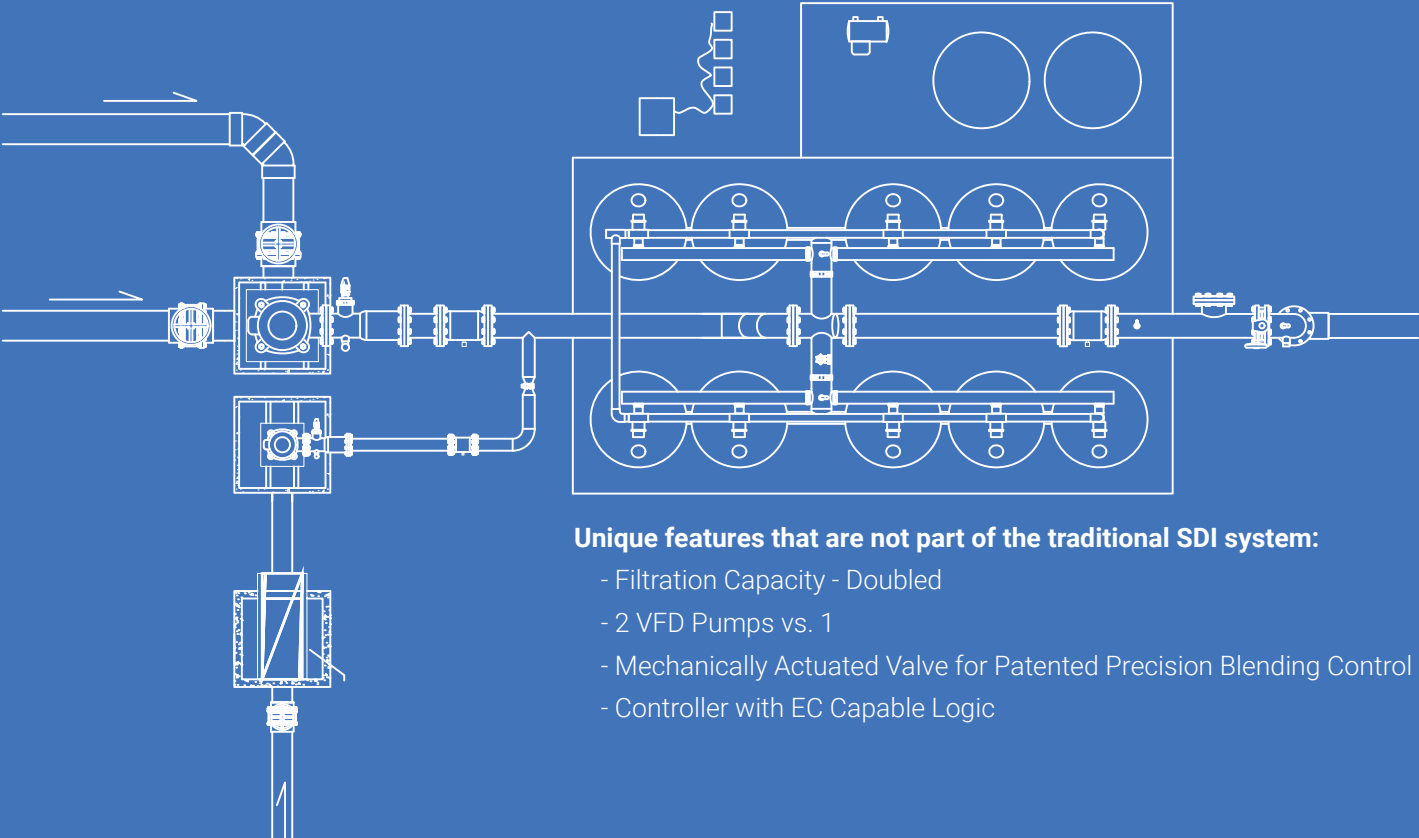
Domonic Rossini
domonic.rossini@netafim.com



Sustainable Conservation

John Cardoza
jcardoza@suscon.org

DAIRY EFFLUENT CONTROL HEAD SYSTEM

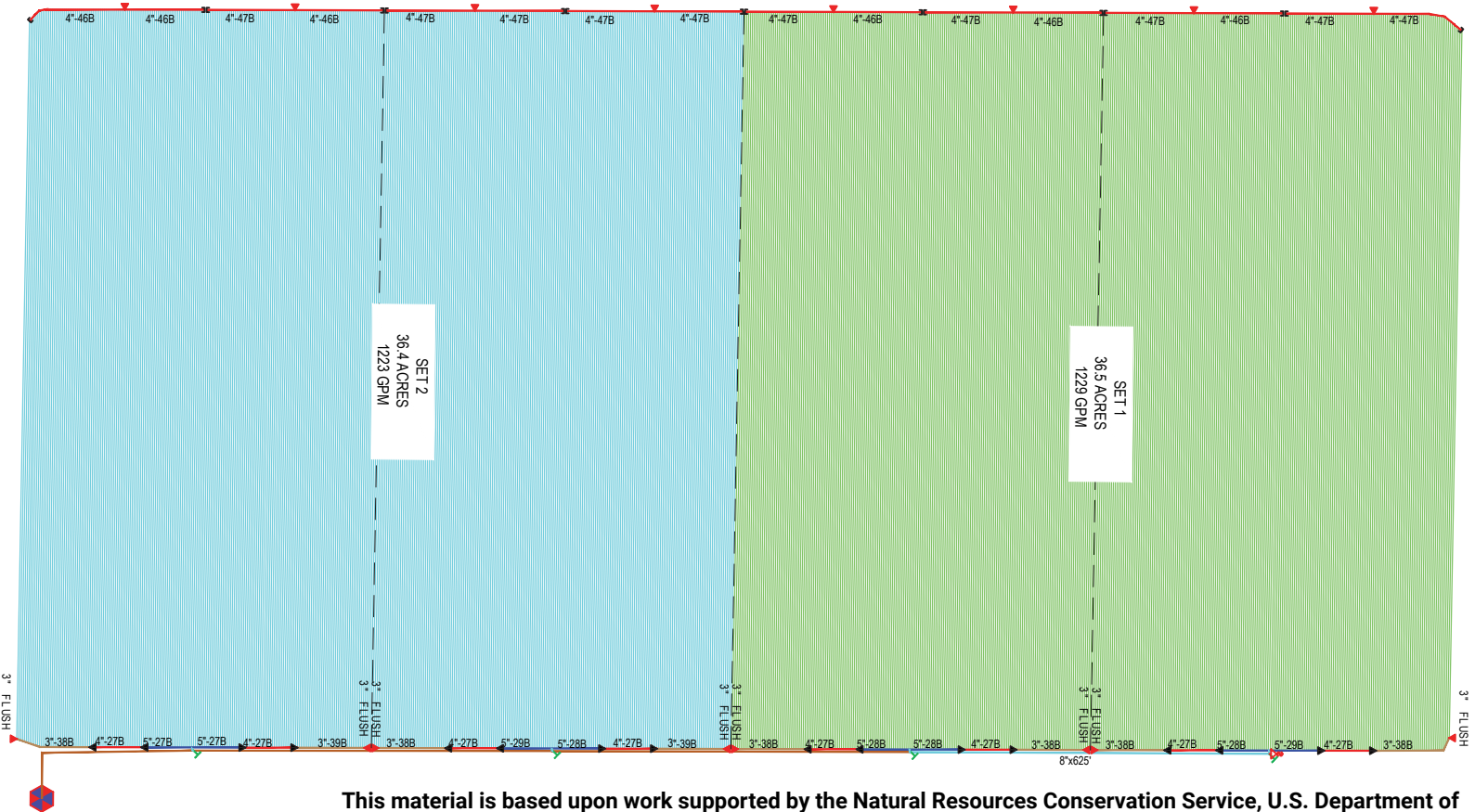


Unique features that are not part of the traditional SDI system:

- Filtration Capacity - Doubled
- 2 VFD Pumps vs. 1
- Mechanically Actuated Valve for Patented Precision Blending Control
- Controller with EC Capable Logic

FIELD LAYOUT

±73 Acres - Corn



This material is based upon work supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under number 69-3A75-17-53. Any opinions, findings, conclusions, or recommendations expressed are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Agriculture.