



TECHNOLOGY PROVIDER
TECHNOLOGY INFORMATION
REQUEST

Technology/Service: On Farm Dairy Manure Separation System

Information by:

Date:

COMPANY INFORMATION

Company Name: Quality Flow, Inc.

Phone: 847-291-7674

Web Site: <http://www.qualityflow.com/>

Address: 3691 Commercial Ave.

State: Illinois

City: Northbrook

Zip Code: 60062-1822

TECHNICAL CONTACT

Name: Peter Kennedy

Phone: 847-291-7674 x204

Email: pkennedy@qualityflow.com

Address: 3691 Commercial Ave.

City: Northbrook

State: Illinois

Zip Code: 60062-1822

DEMONSTRATION SITE CONTACT

Site Name: N/A

Contact:

Title:

Phone:

Email:

Address:

City:

State:

Zip Code:

INITIAL TECHNOLOGY OVERVIEW

This information is to guide in the development of a more specific and detailed Technology Information Request. Please answer the following questions for each Technology or Service provided.

What is the name of the technology or service you provide?

On Farm Dairy Manure Separation System

Describe how this technology is used in a larger Nutrient Management System. Please be as detailed as possible.

This technology will separate dairy manure liquids from solids. Liquids for irrigation or cleaned for recycled animal drinking water or made potable. Solids are used for soil amendments, or further dewatered and sold to us for off farm processing.

How many systems do you have installed on dairy farms or other livestock operations?

	Number of Sites	Size of Installations
Dairy		
Pork		
Poultry		

Do you have a preferred region or area for the location of projects?

Yes. Michigan

Location of farm(s)?

TBD

What's the smallest and largest farm using your system?

N/A

Input and output of your unit/system – do you have a mass balance analysis?

If a mass balance is available, please attach or include as a separate document.

N/A We want to purchase all the manure, at a negotiated price

Input material description/characteristics:

For example: raw manure, digestate, screened digestate, suitable non-farm feedstocks, other.

raw manure, digestate, screened digestate, (NO FOG; Fats, Oil, Grease)

Does the technology treat the full manure stream for a farm or a fraction of the stream?

Yes

Do you consider this a mature system or ongoing farm development?

Ongoing farm development. There aren't many of these systems yet on farms

Any weather constraints? Yes No *Please describe.*

Systems should be housed indoors and kept from freezing.

Any bedding constraints? Yes No *Please describe.*

Prefer sand bedding

Output materials description and characteristics:

Please include the % of the total stream for each material, i.e. 10% fiber and 90% screened liquid by weight.

100% of liquid stream is filtered and around 40% of solids water removed prior to drying.

Do the Outputs of the process have a resale market identified? Yes No

If so under what brand name or who is the contract with?

Yes. Will divulge with more input from Newtrient.

Is this process scalable and to what extent (top and bottom limits)? *Please describe.*

Yes. Prefer beginning minimum of 1,000 cows going up from there.

Do you have a known scaling factor? *Please describe.*

N/A

Does this technology require any air input? Yes No

What is the preferred air connection? *For example: psi, fitting size, air quality.
If not distributed by the system please list each connected device.*

N/A

Does this technology require any water input? Yes No *If so, please describe.*

What is the preferred water connection? *For example: psi, fitting size, water quality, gpm.
If not distributed by the system please list each connected device.*

Varied by plumbing; ½" and up connection sizes.

Does this technology require any electrical input? Yes No *If so, please describe.*

What is the preferred electrical connection? *For example: phase #, voltage, full load amps.
If not distributed by the system, please list each connected device.*

3 phase

Does this technology require any mechanical input? Yes No *If so, please describe.*

It can be automated

What is the preferred mechanical connection? *For example: horsepower, connection, rpms.
If not distributed by the system please list each connected device.*

N/A

Does this technology require any special plumbing? Yes No *Please describe what is required.*

No. Plumbing is size for location characteristics

Does this system require and special foundations or pads? Yes No *If so, please describe.*

No. Skid mounted, level cement flooring

Do you consider this technology part of a larger system that you provide? Yes No *If so, please describe.*

No. Not on farm.

Does your system require any other components that you do not provide or are not included in your proposal?

Yes No *If so, please describe.*

It could dependent on site survey on the farm.

How is the system delivered to the site? *For example: skid mounted, assembled on site, constructed on site.*

Skid mounted, Some Assembly on site...construction may vary)

Is this system portable or configured in such a way that it could be easily transported for use in several locations?

Yes No *Please describe.*

Has your technology been accepted by the NRCS and is it included into a practice standard? Yes No

Describe if necessary.

N/A

Are there any unusable or hazardous byproducts of this process? Yes No

If so, please describe the product and recommended means of disposal.

NO. Does not add any hazardous thing to the farm

What spare parts and redundant components are included with the system?

Determined by site specifics

How is the system controlled and what are the components and capabilities of the control system?

Control Panel customized for site specific operation

What is the usable life of the system?

With proper care 20 years is not unreasonable

What is the salvage value at the end of the usable life?

N/A

What is the educational and technical level of competence for the operation of the system?

We will train.. Prefer at least High school level

What level of maintenance is required for the system?

Please indicate if rebuilds or major components must be replaced and what the frequency is for these components.

Varied dependent on site specifications; routine and preventive maintenance is needed

Are consumables used in the process? Yes No

Please provide the nature and purchase relationship for these consumables. For example: proprietary, special contract, generally available.

Yes. Generally available

Which of these NRCS codes would your technology be classified under? Check all that apply. Add if necessary.

CODE	NRCS DESCRIPTION	APPLIES
472	Access Control	
560	Access Road	
309	Agrichemical Handling	
371	Air Filtration and Scrubbing	
591	Amendments for the Treatment of Agricultural Waste	✓
366	Anaerobic Digester	
672	Building Envelope Improvement	
372	Combustion System Improvement	
317	Composting Facility	
554	Drainage Water Management	✓
375	Dust Control from Animal Activity on Open Lot Surfaces	
373	Dust Control on Unpaved Roads and Surfaces	
374	Farmstead Energy Improvement	
512	Forage and Biomass Planting	
561	Heavy Use Area Protection	
516	Livestock Pipeline	
590	Nutrient Management	✓
521A	Pond Sealing or Lining, Flexible Membrane	
533	Pumping Plant	
558	Roof Runoff Structure	
367	Roofs and Covers	
318	Short-Term Storage of Animal Waste and By-Products	✓
570	Stormwater Runoff Control	
606	Subsurface Drain	
635	Vegetated Treatment Area	
601	Vegetative Barrier	
360	Waste Facility Closure	
632	Waste Separation Facility	
313	Waste Storage Facility	
634	Waste Transfer	
629	Waste Treatment	✓
359	Waste Treatment Lagoon	

Can you provide an estimate of the capital required for the installation of this technology?

Please include all components and designate if provided by you or others.

Depends on sizing for the farm and its site specifications

Can you provide an estimate of the operational costs required for this technology?

Please include all costs and designate if provided by you or others.

Depends on the sizing of the system

Is there financing available for this system? Yes No *If so, what are the conditions for this financing?*

Yes. REAP and EQIP

Is the system available for lease? Yes No *Please describe.*

Not yet.

What sort of warrantee or guarantee do you provide with this technology?

Do you provide any performance guarantees or strictly defects in parts and materials?

Yes. The equipment mfg and varied with maintenance records

Explain how this system is unique or transformative and how does it improve upon or go beyond other technologies that are currently available.

System is not widely used or understood. Should be used as a part of the solution to complete manure with off farm processing.

Would you be willing to provide a location for a site visit by Newtrient? Yes No

If so, please provide location.

N/A

Technology References. Please provide customers with whom we can discuss this technology and its performance.
Include a company name, location, contact name and contact information.

Reference 1

Company Name:	Equipment manufacturers
Company Location:	
Contact Name:	
Contact Information:	

Reference 2

Company Name:	
Company Location:	
Contact Name:	
Contact Information:	

Reference 3

Company Name:	
Company Location:	
Contact Name:	
Contact Information:	

Reference 4

Company Name:	
Company Location:	
Contact Name:	
Contact Information:	

Are there any other facts about this technology that you feel should be included in this document?

This represents the on farm aspects of complete manure management, the off farm processing is need to complete the picture.