



# TECHNOLOGY PROVIDER TECHNOLOGY INFORMATION REQUEST

**Technology/Service:** New Leader - Organic Nutrient Application Equipment

**Information by:** Marty Wolske

**Date:** October 16, 2017

## COMPANY INFORMATION

**Company:** New Leader

**Phone:** 319-363-8281

**Web Site:** [www.new-leader.com](http://www.new-leader.com)

**Address:** 1330 76<sup>th</sup> Ave SW

**City:** Cedar Rapids

**State:** IA

**Zip Code:** 52404

## TECHNICAL CONTACT

**Name:** Craig Fenstermaker

**Phone:** 319-286-3167

**Email:** cfenstermaker@highwayequipment.com

**Address:** 1330 76<sup>th</sup> Ave SW

**City:** Cedar Rapids

**State:** IA

**Zip Code:** 52404

## DEMONSTRATION SITE CONTACT

**Site Name:** Provided upon request

**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?**

NL450C organic nutrient application equipment.

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

Uniform, consistent application of composted material at prescribed rates up to 10 tons per acres at high rates of speed.

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

### SYSTEMS

### NUMBER OF SITES

### SIZE OF INSTALLATIONS

Dairy	Equipment is portable and designed for use on multiple livestock operations	
Pork		
Poultry		

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

Worldwide with major presence in the United States, Canada and South America

**Location of farm(s)?**

Compost spreader is portable and designed for use on multiple livestock operations

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

Large and small farm operations spreading compost at prescribed rates up to 10 tons of compost per acre

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

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

NA

**Input material description and characteristics:**

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

Compost from manure

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

Spreads the fraction of the manure stream used to produce compost

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

Mature

**Any weather constraints?** Yes ☐ No ☒ *If so, please describe.*

**Any bedding constraints?** Yes ☐ No ☒ *If so, please describe.*

**Output material description and characteristics:**

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

Uniform, consistent application of composted material at prescribed rates up to 10 tons per acres at high rates of speed.

**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?*

NA

**Is this process scalable and to what extent (top and bottom limits)?** Yes ☐ No ☐ *If so, please describe.*

NA

**Do you have a known scaling factor?** Yes ☐ No ☐ *If so, please describe.*

NA

**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.*

NA

**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.

NA

**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.

NA

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

New Leader products are sold through a dealer network. Either a tractor is required to pull the spreader trailer or a chassis is required on which to mount a spreader.

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

Recommended tractor or chassis requirements determined by dealer.

**Does this system require any special plumbing?** Yes ☐ No ☒ If so, please describe what is required.

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

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

Either a tractor is required to pull the spreader trailer or a chassis is required on which to mount a spreader.

**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.

New Leader products are sold through a dealer network. Either a tractor is required to pull the spreader trailer or a chassis is required on which to mount a spreader.

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

New Leader products are sold through a dealer network. End users will work with their local dealer to obtain delivery.

**Is this system portable or configured in such a way that it could be easily transported for use in several locations?**  
Yes ☒ No ☐ If so, please describe.

Tractors pull spreader trailers and chassis-mounted spreaders are self-propelled.

**Has your technology been accepted by the NRCS and is it included into a practice standard?** Yes ☐ No ☐  
If so, please describe if necessary.

NA

**Are there any unusable or hazardous byproducts of this process?** Yes ☐ No ☒  
If so, please describe the product and recommended means of disposal.

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

All parts and service are obtained through the New Leader dealer network.

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

All precision ag control systems.

**What is the usable life of the system?**

Multiple years depending upon care and preventative maintenance practices of the operator.

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

Varies depending upon care and preventative maintenance practices of the operator.

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

Entry level with some initial training.

**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.*

Minimal, depending upon care and preventative maintenance practices of the operator.

**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.*

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

CODE	NRCS DESCRIPTION	CHECK ALL THAT APPLY
472	Access Control	<input type="checkbox"/>
560	Access Road	<input type="checkbox"/>
309	Agrichemical Handling	<input type="checkbox"/>
371	Air Filtration and Scrubbing	<input type="checkbox"/>
591	Amendments for the Treatment of Agricultural Waste	<input type="checkbox"/>
366	Anaerobic Digester	<input type="checkbox"/>
672	Building Envelope Improvement	<input type="checkbox"/>
372	Combustion System Improvement	<input type="checkbox"/>
317	Composting Facility	<input type="checkbox"/>
554	Drainage Water Management	<input type="checkbox"/>
375	Dust Control from Animal Activity on Open Lot Surfaces	<input type="checkbox"/>
373	Dust Control on Unpaved Roads and Surfaces	<input type="checkbox"/>
374	Farmstead Energy Improvement	<input type="checkbox"/>
512	Forage and Biomass Planting	<input type="checkbox"/>
561	Heavy Use Area Protection	<input type="checkbox"/>
516	Livestock Pipeline	<input type="checkbox"/>
590	Nutrient Management	<input checked="" type="checkbox"/>
521A	Pond Sealing or Lining, Flexible Membrane	<input type="checkbox"/>
533	Pumping Plant	<input type="checkbox"/>

588	Roof Runoff Structure	<input type="checkbox"/>
367	Roofs and Covers	<input type="checkbox"/>
318	Short-Term Storage of Animal Waste and By-Products	<input type="checkbox"/>
570	Stormwater Runoff Control	<input type="checkbox"/>
606	Subsurface Drain	<input type="checkbox"/>
635	Vegetated Treatment Area	<input type="checkbox"/>
601	Vegetative Barrier	<input type="checkbox"/>
360	Waste Facility Closure	<input type="checkbox"/>
632	Waste Separation Facility	<input type="checkbox"/>
313	Waste Storage Facility	<input type="checkbox"/>
634	Waste Transfer	<input type="checkbox"/>
629	Waste Treatment	<input type="checkbox"/>
359	Waste Treatment Lagoon	<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

**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.*

All pricing handled through the dealer.

**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.*

Varies depending upon care and preventative maintenance practices of the operator

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

Financing handled through the dealer network.

**Is the system available for lease?** Yes ☐ No ☐ *If so, please describe.*

Varies. Handled through the dealer network.

**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?*

Warranty or guarantee provided through the dealer. List warranty is 2 years parts and labor.

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

New Leader is a company committed to the triple bottom line of people, planet and profit exhibited in the product solutions we deliver to the market. New Leader nutrient application equipment allows users to achieve greater productivity while precisely applying nutrients at prescribed rates. That precision means nutrient does not get applied to areas where it does not feed crops, which protects the environment.

**Would you be willing to provide a location for a site visit by Newtrient?** Yes ☒ No ☐ *If so, please provide location.*

Will work with end-users and dealers to support a site visit.

**TECHNOLOGY REFERENCES**

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**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**

<b>Company Name:</b>	Hartley Farms
<b>Company Location:</b>	WA/OR
<b>Contact Name:</b>	Troy Hartley
<b>Contact Information:</b>	hartleyrmk@yahoo.com

**Reference 2**

<b>Company Name:</b>	Howard, LLC
<b>Company Location:</b>	KY
<b>Contact Name:</b>	Mickey Howard
<b>Contact Information:</b>	howardrock@bellsouth.net

**Reference 3**

<b>Company Name:</b>	Southeast Ag Equipment
<b>Company Location:</b>	NC
<b>Contact Name:</b>	Thomas Brittle
<b>Contact Information:</b>	tbrittle@southeastag.com

**Reference 4**

<b>Company Name:</b>	
<b>Company Location:</b>	
<b>Contact Name:</b>	
<b>Contact Information:</b>	

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

Use the New Leader organic nutrient applicators to spread:

- Compost
- Feedlot manure
- Waste water sludge
- Industrial waste
- Paper mill waste
- Marl
- Poultry litter
- Fly ash
- Sludge

Presented below are some of the unique features and corresponding benefits of New Leader organic nutrient application equipment.

Organic Nutrient Application Equipment Feature	Benefit
50° side slopes	Provides greater capacities as well as even flow of product. Eliminates the problem of bridging often experienced with equipment that is not specifically designed for compost and other organic materials.
34-inch conveyor	An extra-wide conveyor supports the ability to achieve up to 10 tons per acre application rates.  Conveyor options include a #1 crossbar chain w/.500" crossbars spaced 6.75" for straight compost applications and a #2 crossbar chain w/.375" crossbars spaced 4.5" for compost and gypsum applications.
Compost material divider	The material divider on this machine is designed specifically for compost with wide opening for high output capacity. This allows large objects to freely flow through the divider. It also helps maintain a consistent material drop point on the spinner disc, which delivers a uniform application.
30-inch diameter spinner disc	The spinner disc is equipped with four standard New Leader fins with the ability to add two additional fins for a total of six per disc.  The heavy-duty disc provides additional inertia to help broadcast product wider. It also eliminates damage to the disc caused by large solid objects.
24 gallon hydraulic system with 80,000 BTU cooler	The new style hydraulic reservoir is standard along with an oil cooler to maintain uniform temperatures for longer life of components and a more efficient operating system.
52" spinner height and 10.5' loading height	A 10.5' loading height means you have the ability to load with a standard front end loader. A 52" spinner height allows means material is broadcast widely in a flat-top pattern compared to machines that utilize loft to broadcast. When materials are lofted, they are more susceptible to wind which leads to inconsistency in application.
Hydraulic feedgate	The operator has the ability to adjust the height of the

	feedgate from the comfort of the cab.
Pressurized chain oiler	The pressurized chain oiler allows the operator to easily lubricate the conveyor chain on a daily basis.
Recessed endgate	The front and rear endgates are vertical to stop product from hanging on the sloped ends. The rear endgate is recessed in 18" to stop free flowing product when the conveyor is shut off at the ends of the fields.
Variable rate control	<p>Available through dealer-provided control systems such as Ag Leader, Raven and others.</p> <p>Recommend using control systems with AutoSwath technology which automatically turns the applicator on or off, giving operators the capability to reduce or prevent over application, overlap, drift and application gaps.</p>