

Clear Roads Product Experience Feedback for 2006 - 2009 Winter Seasons

1= least helpful/poor and 5=extremely helpful/excellent

Blades with ceramic inserts

<http://www.qummi-kueper.de/>

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Illinois	1	2008-09	n/a	5	3	1	4	1	Product does not hold up to our snow plowing environment. Product needs curb guard capability. Noted less noise, smoother and scrapes better.
Average rating				5 - extremely easy	3 - somewhat helpful	1 - noticeable deterioration	4 - very well	1 - not at all satisfied	

Clear Fast Results

For more information, contact sales@nartron.com or 231-832-5515

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Iowa	1	2006-07	4	4	4	5	3	4	Product is a good tool for dealing with certain conditions such as freezing rain and fogging windshield. The snow that accumulates on the windshield due to blowing or end of plow driftings however, was more than the product could handle.
Iowa	1	2006-07	3	4	Not applicable	4	5	5	liked the idea of a simple on/off switch for the product versus having a manufacturer specific switch for the product, works well with the shaker system, operators found this product very user friendly
Iowa	1	2006-07	5	4	Not applicable	5	4	4	Cleans window fine, doesn't deice very much. Shaker - during snow storm keep wipers clean
Iowa	1	2006-07	5	3	Not applicable	5	4	4	Cleans window, didn't do a whole lot for ice. Clear Fast draws volt meter down.
Iowa	1	2006-07	4	4	3	4	4	4	Used lots of fluid through the washer.
Average rating			4.2 - helpful	3.8 - easy	3.5 - helpful	4.6 - maintained excellent condition	4 - very well	4.2 - very satisfied	

FLIR infrared cameras (vehicle mounted)

http://www.flirthermography.com/cameras/all_cameras.asp

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Iowa	No Response	2008-09	2	2	1	1	1	1	
Average rating			2 - moderately helpful	2 - difficult	1 - not at all helpful	1 - noticeable deterioration	1 - not at all well	1 - not at all satisfied	

Fusion Deicer

<http://eco-solutions.net/winter%20products.php>

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Iowa	3,600	2008-09	4	4	4	3	3	3	
Illinois	8,000	2008-09	n/a	n/a	3	4	4	4	It's still too early to tell if this is an alternative to salt brine
Average rating			4 - helpful	4 - easy	3.5 - helpful	3.5 - maintained good condition	3.5 - very well	3.5 - very satisfied	

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Geomelt

<http://www.snisolutions.com/?id=products&cid=2>

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Missouri	8,000 gallons	2008-09	5	4	5	5	5	5	Employees thought product performed good as Calcium if not better. End of shift leather gloves still fit. Thought they might had one to two more cycle times than crew on either side. Load salt and GO.
Missouri	12,000 Gallons	2007-08	5	3	4	5	5	5	The lumping or hardening of our salt was practically eliminated. The lumps easily broke up in the loading process. Very good results.
Missouri	10,000 gallons	2007-08	4	3	5	4	4	4	I am sold on Beet Juice. It performs very well under the stated conditions of lower temps. It took a little reworking of our delivery systems. We will incorporate more stations that use beet juice in Eastern Jackson Co.
Misouri	20,000 gallons	2007-08	3	4	4	4	4	4	Geomelt performs exceptionally well as an anti-caking agent. Stockpiles treated with Geomelt have remained free flowing. Initial reports on its effectiveness as an anti-icing agent are inconclusive. We plan on conducting a more indepth evaluation during the 2008-09 winter.
Illinois	14,568 gallons	2008-09	n/a	n/a	n/a	n/a	3	3	
Illinois	8,000 gallons	2007-08	n/a	n/a	5	n/a	3	3	IDOT will continue to evaluate the procut. The chemical was mixed with salt brine and used to prewet granular salt. The operators reported that roads cleaned up faster when using this product. No formal evaluation has been performed by IDOT.
Ohio		2007-08	2	4	5	3	2	3	Best thing about Geomelt was not having to use grits when applying this product
Ohio	12,000 gallons	2007-08	4	3	5	3	3	3	We did not have consistency with the product. The drivers had a hard time with the theory of plowing the road and not re applying materials. We could not show the additional cost as a benefit. Keep in mind this was using the product on the salt as a treated pile.
Ohio	1,000 gallons	2007-08	4	5	4	4	3	4	Longer to react but results last longer for pavement. Takes less material to treat highway. Not as effective below 20. Suggest treating initially with salt and then geomelt mixture.
Ohio	1,971 gallons	2007-08	4	4	3	3	2	2	Did not use enough to really know.
Average rating			3.875 - helpful	3.75 - somewhat easy	4.444 - very helpful	3.875 - maintained good condition	3.4 - somewhat well	3.6 - satisfied	

Joma plow blade

<http://www.jomablackcat.com/>

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Illinois	1	2008-09	3	4	3	5	4	4	Blade outlasted 2 sets of carbide blades on the control plow. Drivers did notice that Joma Blade cleaned the pavement better as well as being quieter than the control blade. Cost is an issues as Jome Blade costs 2.5 to 3 times as much as the standard carbide blades.
Ohio	40+ sets	2007-08	4	5	4	5	5	5	The Joma plow blades in Lake County average nearly 6000 plowing miles with some of the trucks running an entire snow and ice season on only one blade! -Joma plow blades have no metal to metal contact with the snowplow which decreases the shock on the plows, the road surface, and most importantly the drivers. -A reduction of noise and vibration lead to a reduction of operator and equipment fatigue. -Joma plow blades conform to the pavement surface much better than the steel blades which can lead to a reduction in the amount of de-icing material needed to treat a roadway. -No BWC claims due to lifting plow blades since the switch from steel blades. -New technology that has the full support of the Lake County staff. Even 25-30 yr veterans, who are the hardest to get to buy into a new idea, believe wholeheartedly in the Joma plow blades. There are many hidden cost savings with these rubber blades too. Less vibration leads to less fatigue on front end parts of plow trucks, RPMs are not ripped out of the pavement, and the ability to replace sections of damaged blades with sections from a used blade. Lane striping and crack sealing material isn't "peeled" from the road like with the steel blades which reduces the need to remake costly repairs to a road.
Ohio	16 trucks	2007-08	5	5	5	5	5	5	The Joma blades outlast steel blades 4:1. The trucks front end doesn't vibrate as it does when using steel blades. Joma blades are lighter in weight. Less wear on the pavement lane lines.
Missouri		2007-08	5	4	4	4	4	4	A Good Blade that lasts alot longer and does a better job than the carbide blades
Missouri	No Response	2008-09	n/a	3	n/a	4	4	4	

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Jome Plow Blade results (continued)

Minnesota	3 sets	2007-08	n/a	4	4	5	4	4	The test procedure I used was to place a micro switch on the plow lift mechanism and a micro switch on the side of the driver's seat. With this system the ignition switch had to be on, the driver's seat depressed and the plow lowered in order for the circuit to be closed. I placed an hour meter in line to record the hours the cutting edges were being used. This eliminated the operator from recording how much time that the cutting edges were lowered and in use. The Milaca truck 93206 right hand on the TP3NR522 (T.H. 169 S.) route had the best results of 108 hr. of usage before replacement. Their route consists of 14 miles of seal coat, 10 miles of micro-surfacing, 5 miles of nova-chip 5 miles of bituminous. The other Milaca truck 200057 on the TP3NR521 (T.H. 169 N.) route had good results with 85.5 hr. before replacement. This route consists of 18 miles of seal coat, 25 miles of bituminous, 7 miles of concrete and 9 miles of micro-surfacing. Both of these routes the drivers recommended using these cutting edges because of longevity, less vibration and quiet operation. One route didn't have to replace the cutting edges all season and was very impressed by the saving of time and safety of not having to change cutting edges 2 or 3 times a season. The Elk River truck 99045 on the TP3NR512 (T.H.10 W.) route had quite different results of 40 hr. before replacement. The biggest difference they had was 45 miles of very poor concrete with many poor cross cracks and potholes. Another possible problem could be plowing habits and excessive speed which are hard to record. The operators said that it seems to be catching on the concrete causing the plow to trip more frequently than the standard cutting edges.
Minnesota	6 districts	2008-09	n/a	5	n/a	5	5	5	JOMA blades are on the implementation list.
Utah	2 sets	2006-07	4	5	4	5	5	5	Our traditional blades wore out after 21 hours service on the plow (average). The two sets of JOMA blades lasted 124 (Tooele) and 108 hours (Strawberry). Operators reported cleaner roads and much less vibration in the cab. One driver stated that he had to raise and lower the plow to determine if the plow was down because he could not hear the scraping noise. Very positive test results
Average rating			4.2 - helpful	4.375 - easy	4 - helpful	4.75 - maintained excellent condition	4.5 - very well	4.5 - very satisfied	

GL3000C Guidance Laser for wing plows

<http://www.laserlinemfg.com/products.html>

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Minnesota	No Response	2008-09	4	4	4	5	5	5	
Utah	16	2007-08	5	4	5	5	4	5	Our field crews installed the units without having to use the central shops. We cut back avoidable hits by 85% overall. The worse the conditions the more help the laser unit is. Overall, we are very pleased with the GL3000C.
Minnesota	1	2007-08	5	5	4	5	4	4	This was a great cost savings project, we had no accidents with fixed objects along the road when in use. The vendor was great to deal with and just a great all around project. There are plans to use this on the paving machine.
Average rating			4.67 - extremely helpful	4.33 - easy	4.33 - helpful	5 - maintained excellent condition	4.33 - very well	4.67 - extremely satisfied	

Heated windshield washer fluid system

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Wisconsin	1 truck fitted with unit	2007-08	3	3	3	3	1	1	No difference - our Patrolman who operated the plow truck with the heated Windshield Washer Fluid said not to waste your money on this product.
Wisconsin	1 truck fitted with unit	2007-08	3	4	2	4	2	2	I do not feel the product worked well enough to budget for the rest of our trucks
Average rating			3 - somewhat helpful	3.5 - easy	2.5 - moderately helpful	3.5 - maintained good condition	1.5 - did not address problem	1.5 - less than satisfied	

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Hot Shot Results

www.microheat.com

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Iowa	1	2006-07	3	4	Not applicable	4	3	4	Works fine in light snow and freezing rain - didn't keep up in heavy wet snow.
Iowa	1	2006-07	Not applicable	Not applicable	Not applicable	4	1	1	Couldn't tell any difference, didn't deice at all
Iowa	1	2006-07	3	4	Not applicable	4	3	4	Didn't work in heavy snow.
Iowa	1	2006-07	4	4	4	4	4	4	Worked well but used lots of fluid. Used with wiper shaker system and worked well together.
Iowa	1	2006-07	3	2	5	Not applicable	1	1	Button has too many settings. Should be on-off only, and driver should be allowed to control the amount of liquid applied. Uses too much fluid, button not user-friendly and when plowing it takes too long to operate.
Average rating			3.25 - moderately helpful	3.5 - easy	4 - helpful	4 - maintained good condition	2.4 - moderately well	2.8 - moderately satisfied	

Multiple-edge plows

<http://www.clearroads.org/multiple-blade-plow-prototypes.html>

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Indiana	1	2008-09	4	4	5	5	5	5	Plow removed majority of moisture from the road service. Enabled road to dry quickly.
Iowa	1	2008-09	4	5	5	5	5	5	I would say it the best plow I have had in 36 years with the DOT.
Iowa	1	2008-09	1	4	1	2	1	1	Kudos for the effort! But nobody in this shop wants this plow. Feel free to move it!
Average rating			3- somewhat helpful	4.33 - easy	3.67 - helpful	4 - maintained good condition	3.67 - very well	3.67 - very satisfied	

Salt brine maker: Varitech

http://www.varitech-industries.com/html/salt_brine.html

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Missouri	1	2008-09	5	5	4	4	5	5	We used the Varitech brine maker to make salt brine for all 5 of my buildings and hauled it out of one location to out lying buildings. Worked very for what we wanted. Could easily make 10,000 gal a day.
Average rating			5 - extremely helpful	5 - extremely easy	4 - helpful	4 - maintained good condition	5 - extremely well	5 - extremely satisfied	

Salt brine maker: Accubrine

http://www.accubrine.com/how_selfcleaning.html

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Virginia	5,000 gallons	2008-09	5	4	5	4	5	5	The automatic brine maker makes the brine with such ease and to the correct specs that the only concern we now have to deal with is the application to the roadways.
Virginia	No Response	2008-09	3	2	3	n/a	No Response	3	Some leaking experienced with product; some parts of contract language not followed by vender.
New York	1	2008-09	3	3	4	3	3	3	
Average rating			3.67 - helpful	3 - average	4 - helpful	3.5 - maintained good condition	4 - very well	4.33 - very satisfied	

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Salt brine maker: Reed Systems

<http://www.reedsystemsld.com/brinemaking.htm>

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Virginia	1	2008-09	3	3	4	3	3	3	I feel Reed Systems could design a better double wall storage tank. It present a style which reflects poor manufacture quality and design.
Virginia	1	2008-09	4	5	4	5	4	4	
Virginia	1	2008-09	2	3	4	4	4	4	
New York	1	2008-09	5	n/a	5	4	4	5	low tech unit that has a good production rate
Average rating			3.5 - helpful	4.33 - easy	4.25 - helpful	4 - maintained good condition	3.75 - very well	4 - very satisfied	

Scale-Tec Calibrator IV portable spreader calibration scale

<http://www.scale-tec.com/>

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Minnesota	25	2008-09	n/a	4	4	5	5	5	It's on the implementation list.
Illinois	1	2008-09	3	5	3	5	5	4	Excellent tool to calibrate spreader control systems
Average rating			3 - somewhat helpful	4.5 - extremely easy	3.5 - helpful	5 - maintained excellent condition	5 - extremely well	4.5 - extremely satisfied	

Shaker Wiper Results

www.wipershaker.com

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Iowa	1 set	2006-07	5	4	Not applicable	5	4	4	During freezing rain motors iced up didn't vibrate well
Iowa	1 set	2006-07	5	3	Not applicable	5	4	4	Iced up with freezing rain. Did work well in heavy snow.
Iowa	1 set	2006-07	4	3	3	4	4	4	This was combined with the HotShot washer system. When cold, ice would build-up beyond shaker capability. Worked well in combination with HotShot washer system
Iowa	1 set	2006-07	5	4	Not applicable	5	4	4	Easy to use and works well. Ice may accumulate on the ends of wipers in bad storms.
Minnesota	4 sets	2006-07	4	5	Not applicable	5	5	5	
Indiana	1 set	2006-07	4	3	Not applicable	5	4	5	
Indiana	4 sets	2006-07	4	4	4	4	4	4	Worked well in light snow and in freeing rain.
Indiana	4 sets	2006-07	4	4	Not applicable	4	4	4	
Indiana	5 sets	2006-07	5	4	5	3	4	5	On one units the wires pulled out of the unit. It was sent back to the factory and a replacement box was sent back. Good service.
Average rating			4.4 - very helpful	3.8 - easy	4 - helpful	4.4 - maintained good condition	4.1 - very well	4.3 - very satisfied	

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Viking Cives TowPlow with liquid tank

<http://www.vikingcives.com/pdf/VCM/Tow%20Plow.pdf>

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Minnesota	4 districts	2008-09	No Response	No Response	5	No Response	No Response	5	
Minnesota	1	2008-09	4	3	4	5	4	5	There were some initial problems due to the learning curve, but the more familiar my operators became with the towplow, the more they liked it. I now have 5 operators trained on this piece of equipment.
Missouri	8	2008-09	4	5	5	5	5	5	Tremendous product. Worked well. Has improved our snow removal operations considerably. Widens the clearing path of a single truck. TowPlows can also be used to move the snow farther off the shoulder in a way similar to a wing. The positive part of this is that the truck stays on a good driving surface and the TowPlow will cantilever out past the edge of the shoulder.
Missouri	No Response	2008-09	4	4	4	4	5	5	
Average rating			4 - helpful	4 - easy	4.5 - extremely helpful	4.67 - maintained excellent condition	4.67 - extremely well	5 - extremely satisfied	

Viking Cives TowPlow with material spreader

<http://www.vikingcives.com/pdf/VCM/Tow%20Plow.pdf>

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Missouri	No Response	2008-09	5	4	4	4	5	5	The Tow - Plow has been a great asset to our operation we have been able to pull two of our trucks and operators off the interstate and put them on other routes to bring our level of service up for those routes. We had a 8 to 10 inch snow storm and blowing winds in our district which was not in my area but we sent our 2 Tow - Plows to help keep the interstate open from drifting snow and they just kicked butt and simply amassed the crews that was fighting the storm before we showed up.They are a great piece of equipment. The more we do with the tow - plows the more we learn to do.
Missouri	1	2008-09	5	5	5	5	5	5	We were using 5 trucks to clear the 38' section of roadway in hte past. We used the tow-plow and 2 other trucks to achieve the same results. We eliminated 2 trucks. It performed very well and the operator was well pleased with how the truck and tow-plow handled.
Missouri	No Response	2008-09	5	5	4	4	5	5	I think it is one of the best pieces of equipment that MoDOT has bought and we are glad we have it to use.
Missouri	No Response	2008-09	5	4	4	4	5	5	Nothing but kudos and I wish I had 2 more and we could take care of I-55 with 4 Tow Plows on the main driving service which is from one end to the other would be app. 90 miles of 4 lane. We do have a truck on I-55 taking care of the ramps and overpasses and also 2 rest- areas in the mix. Each truck other than the tow plow takes care of about a 20 to 25 mile stretch.If the Tow Plow gets behind or would need help on something they are out there to help out. Thanks
Maine	1	2008-09	5	5	5	5	5	5	I'm the first driver in mdot to try out the Tow plow. I can only hope that from the test, Maine will buy one or more . The Tow plow made my job easier and safer.
Average rating			5 - extremely helpful	4.6 - extremely easy	4.4 - helpful	4.4 - maintained good condition	5 - extremely well	5 - extremely satisfied	

Zero Velocity Spreader

<http://www.henderson-mfg.com/products.asp>

State	Quantity tested	Season tested	Helpfulness of the product instructions.	Ease of installation.	Vendor's technical support and services.	Durability of the product during your test period.	How well did the product address your problem?	Overall satisfaction with the product.	Comments about the product (concerns, kudos, etc.)
Minnesota	2	2008-09	4	4	5	5	5	5	It is on the implementation list
Average rating			4 - helpful	4 - easy	5 - extremely helpful	5 - maintained excellent condition	5 - extremely well	5 - extremely satisfied	