



## Nitrate Testing for Private Wells Results as of June 2019

The Minnesota Department of Agriculture (MDA) has designed a Township Testing Program to determine current nitrate-nitrogen concentrations in private wells. Townships are initially selected if 30% of the township is vulnerable to groundwater contamination and 20% is in row crop production. The MDA uses the final results to determine if additional action is needed to minimize potential sources of nitrate pollution in the state's groundwater.

Program testing and the summarizing of results are ongoing. Tables were created with current data, 6/2019.

**Table 1: Final Township Testing Results<sup>1</sup>**

County	Number of Townships Tested	Final Well Dataset	Number of Townships with Wells Over the Health Risk Limit ( $\geq 10$ mg/L Nitrate-N) (Listed by percentage of wells exceeding the health risk limit.)					
			<5%	5-9%	10-19%	20-29%	30-39%	$\geq 40\%^2$
Becker	3	183	0	2	1	0	0	0
Benton	4	690	2	1	1	0	0	0
Dakota <sup>3</sup>	15	1179	4	3	2	3	2	1
Dodge	7	588	7	0	0	0	0	0
Douglas	9	1826	9	0	0	0	0	0
Fillmore	24	1070	13	7	3	1	0	0
Hubbard	6	1048	1	3	2	0	0	0
Kandiyohi	4	300	4	0	0	0	0	0
Morrison	11	1105	2	6	2	0	0	1
Nobles <sup>3,4</sup>	4	10	1	0	0	0	1	1
Olmsted	11	923	10	0	1	0	0	0
Otter Tail	32	4366	25	6	1	0	0	0
Pope	6	283	6	0	0	0	0	0
Rice	4	428	3	1	0	0	0	0
Rock <sup>3</sup>	7	59	2	1	1	2	0	1
Sherburne	6	1993	0	4	2	0	0	0
Stearns	14	1788	8	5	1	0	0	0
Todd	9	760	6	3	0	0	0	0
Wadena	4	222	1	2	1	0	0	0
Washington	2	441	0	1	0	1	0	0
Winona	13	731	6	3	3	0	0	1

**Table 2: Initial Township Testing Results-Final Township Testing Results are Not Yet Available<sup>1</sup>**

County	Number of Townships Tested	Number of Wells	Number of Townships with Wells Over the Health Risk Limit ( $\geq 10$ mg/L Nitrate-N) (Listed by percentage of wells exceeding the health risk limit.)					
			<5%	5-9%	10-19%	20-29%	30-39%	$\geq 40\%^2$
2018								
Blue Earth	5	642	4	1	0	0	0	0
Carver	1	160	1	0	0	0	0	0
Chippewa	3	185	0	2	1	0	0	0
Chisago	2	382	0	1	1	0	0	0
Cottonwood <sup>3</sup>	4	34	3	0	0	0	0	1
Faribault	3	134	3	0	0	0	0	0

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			<5%	5-9%	10-19%	20-29%	30-39%	$\geq 40\%^2$
2018 continued								
Houston	10	576	3	1	1	4	1	0
Kanabec	1	115	1	0	0	0	0	0
Le Sueur	2	248	1	0	0	0	0	1
Lincoln <sup>3</sup>	1	7	0	0	0	0	0	1
Lyon <sup>3</sup>	2	37	1	0	1	0	0	0
Meeker	2	245	2	0	0	0	0	0
Nicollet	1	26	0	0	1	0	0	0
Pipestone <sup>3</sup>	9	115	0	0	0	0	2	7
Polk <sup>3</sup>	5	140	5	0	0	0	0	0
Scott	4	488	4	0	0	0	0	0
Steele	4	264	3	1	0	0	0	0
Wright	5	1315	5	0	0	0	0	0
2017								
Clay	11	497	11	0	0	0	0	0
Goodhue	22	2071	7	6	6	2	1	0
Wabasha	14	1087	1	0	8	4	1	0

<sup>1</sup>The initial township testing results include data from all wells initially tested. Final results are determined using two rounds of sampling and a process to remove wells with construction concerns, insufficient construction information and those near potential non-fertilizer sources of nitrate. Final results only include results that are potentially impacted by applied commercial fertilizer.

<sup>2</sup> Additional information for these townships is available in Table 3.

<sup>3</sup> Some townships in the county have less than 20 wells.

<sup>4</sup> One township had no wells left in the dataset.

**Table 3: Townships with > 40% of Wells Exceeding the Health Risk Limit (> 10 mg/L Nitrate-N)**

**Final Township Testing Results**

County	Township	Years Sampled (initial, follow-up)	Total Wells	Number of Wells $\geq 10$ mg/L Nitrate-N	Percentage of Wells $\geq 10$ mg/L Nitrate-N
Dakota	Marshan	2013, 2015	95	42	44.2%
Morrison	Agram	2013, 2015	93	44	47.3%
Winona	Fremont	2016, 2017	28	12	42.9%
Townships with less than 20 wells					
Nobles <sup>3</sup>	Lismore	2016, 2017	3	2	66.7%
Rock <sup>3</sup>	Clinton	2016, 2017	2	1	50.0%

**Additional Information**

Township Testing Program: [www.mda.state.mn.us/townshiptesting](http://www.mda.state.mn.us/townshiptesting)

Minnesota Nitrogen Fertilizer Management Plan (NFMP): To learn more about the NFMP, the state's blueprint for preventing or minimizing impacts of nitrogen fertilizer on groundwater, visit [www.mda.state.mn.us/nfmp](http://www.mda.state.mn.us/nfmp).

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