



Nitrate Testing for Private Wells Results as of March 22, 2018

The Minnesota Department of Agriculture (MDA) has designed a Township Testing Program to determine current nitrate-nitrogen concentrations in private wells. The initial criteria used to select townships for testing is based on the percentage of township land vulnerable to groundwater contamination (30% or greater) and amount of land in row crop production (20% or greater). 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, 3/22/2018.

Table 1: Final Township Testing Results*

County	Number of Townships Tested	Final Well Dataset	Number of Townships with Wells Over the Health Risk Limit (≥ 10 mg/L Nitrate-N) (Listed by percentage of wells exceeding the health risk limit.)					
			<5%	5-9%	10-19%	20-29%	30-39%	$\geq 40\%^{**}$
Benton	3	472	1	1	1	0	0	0
Dakota	15	1179	4	3	2	3	2	1
Morrison	11	1104	3	4	3	0	0	1
Olmsted	11	923	10	0	1	0	0	0
Otter Tail	21	2276	15	5	1	0	0	0
Pope	6	283	6	0	0	0	0	0
Sherburne	6	1992	0	4	2	0	0	0
Stearns	14	1788	8	5	1	0	0	0
Wadena	4	224	1	2	1	0	0	0
Washington	2	441	0	1	0	1	0	0

Table 2: Initial Township Testing Results-Final Township Testing Results are Not Yet Available*

County	Number of Townships Tested	Number of Wells	Number of Townships with Wells Over the Health Risk Limit (≥ 10 mg/L Nitrate-N) (Listed by percentage of wells exceeding the health risk limit.)					
			<5%	5-9%	10-19%	20-29%	30-39%	$\geq 40\%^{**}$
2017								
Clay	11	1159	11	0	0	0	0	0
Goodhue	22	2071	7	6	6	2	1	0
Fillmore	24	1477	2	3	8	8	3	0
Rice	4	478	3	0	1	0	0	0
Wabasha	14	1087	1	0	8	4	1	0
2015-2016								
Becker	3	200	0	1	2	0	0	0
Benton	1	321	0	1	0	0	0	0
Dodge	7	654	3	1	3	0	0	0
Douglas	9	1864	7	2	0	0	0	0
Hubbard	6	1106	1	2	3	0	0	0
Kandiyohi	4	313	1	3	0	0	0	0
Nobles	4	45	0	0	0	0	0	4
Otter Tail	11	2160	9	2	0	0	0	0
Rock	7	171	0	0	0	0	0	7
Todd	9	797	4	5	0	0	0	0
Winona	13	940	2	2	5	1	1	2

* The initial township testing results include data from all wells initially tested. An optional follow-up testing and well survey is offered to homeowners that have a presence of nitrate in their initial sample. Wells with nitrate-nitrogen results over 5 mg/L and a nearby non-fertilizer source or identified well problem are removed. The remaining wells form the final township testing well dataset.

** Additional information for these townships is available in Table 3.

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 ≥ 10 mg/L Nitrate-N	Percentage of Wells ≥ 10 mg/L Nitrate-N
Dakota	Marshan	2013, 2015	95	41	43.2%
Morrison	Agram	2013, 2015	93	44	47.3%

Initial Township Testing Results					
County	Township	Year Sampled	Total Wells	Number of Wells ≥ 10 mg/L Nitrate-N	Percentage of Wells ≥ 10 mg/L Nitrate-N
Nobles	Grand Prairie	2016	14	13	92.9%
Nobles	Westside	2016	15	13	86.7%
Nobles	Lismore	2016	7	5	71.4%
Nobles	Olney	2016	9	4	44.4%
Rock	Clinton	2016	10	8	80.0%
Rock	Battle Plain	2016	23	15	65.2%
Rock	Mound	2016	28	16	57.1%
Rock	Vienna	2016	23	11	47.8%
Rock	Magnolia	2016	20	9	45.0%
Rock	Rose Dell	2016	30	13	43.3%
Rock	Luverne	2016	37	15	40.5%
Winona	Fremont	2016	42	23	54.8%
Winona	Utica	2016	86	40	46.5%

Additional Information

Township Testing Program: 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.

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