

<b>Lower Niobrara NRD Irrigation Water Samples</b>						
<b>Nitrate Results - 2011</b>						
	<b>Holt</b>	<b>Boyd</b>	<b>Knox</b>	<b>Rock</b>	<b>KP</b>	<b>NRD</b>
Total number of wells in monitoring program	93	2	20	4	11	130
Lowest nitrate results in 2011 data - ppm	1.8	0.1	1.9	2.4	1.8	0.1
Highest nitrate results in 2011 data - ppm	42.7	7	31	5.9	12.1	42.7
Average in 2011 data - ppm	18.4	3.6	11.7	4	6.8	15.7
# of wells with increasing nitrates from 09-11 *	27	0	11	0	3	41
# of wells with decreasing nitrates from 09-11 *	45	0	4	0	5	54
# of wells with no change in nitrates from 09-11 *	5	1	1	0	3	10
Change in average nitrate result from 09-11 ppm	-1.9	0	3.6	0.3	1.2	-0.7

\* # of wells with no change of nitrates from 2009-2011 = # of wells with 2011 nitrate results within 1 ppm of 2009 results or no sample in 2009

Note: Not all wells have consistent data to compare results to previous years.

<b>Pounds of Nitrogen from Irrigation Water</b>										
<b>Nitrates in Irrigation Water (ppm)</b>										
<b>Irrigation Water Applied (inches)</b>		<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>	<b>50</b>
	<b>6</b>	14	20	27	34	41	48	54	61	68
	<b>7</b>	16	24	32	40	48	56	63	71	79
	<b>8</b>	18	27	36	45	54	63	72	81	90
	<b>9</b>	20	31	41	51	61	71	82	92	102
	<b>10</b>	23	34	45	56	68	79	90	102	113
	<b>11</b>	25	37	50	62	75	87	100	112	125
	<b>12</b>	27	41	54	68	82	95	109	122	136
	<b>13</b>	30	44	59	74	88	103	118	133	147
	<b>14</b>	32	48	64	79	95	111	127	143	159
	<b>15</b>	34	51	68	85	102	119	136	153	170
<b>16</b>	36	54	72	90	109	127	145	159	181	

Note: Chart values are obtained through the formula (N lbs = .227 x ppm NO3 x in. H2O)

\*Results have been rounded to the nearest full pound.