

Millersville PA47

With funding from the Pennsylvania Department of Environmental Protection (PA-DEP), the Millersville University Meteorology Department entered into a partnership with the National Atmospheric Deposition Program (NADP) National Trends Network (NTN) and Mercury Deposition Network (MDN) to monitor the chemical makeup and mercury content of precipitation. Site PA47 is one of few sites in the network that collect samples for trace metal and mercury analysis in addition to certain ions.

Dr. Richard Clark and a select group of meteorology and chemistry students collect weekly precipitation samples from standardized collection units. As students graduate, new students are brought into the program. Not only can students fully participate in the collection and chemical analysis of precipitation (gaining practical field and laboratory experience), but courses such as Chemistry of the Atmosphere, Environmental Meteorology, and Environmental Chemistry can use the site and the broader NADP/NTN and MDN databases to launch discussions related to the factors affecting precipitation chemistry. The project is inherently interdisciplinary and has the potential to bring students of meteorology and chemistry together in a real world setting to practice science as science is practiced, discuss issues in a language that transcends both disciplines, and see the results of their efforts enhance a national database that is meaningful to science and society.

Site information provided by Brittany Potter and Millersville University Department of Meteorology website <http://www.atmos.millersville.edu/metall/html/research.htm>



Photo by Advanced Technology Systems, Inc.

PA47 was established about 1.8 km west of Millersville University at a Millersville professor's farm. NTN sampling began on November 21, 2002, and MDN sampling began on November 26, 2002. The PA-DEP is the sponsoring agency and Millersville University is the operating agency. James Lynch works with Dr. Richard Clark (pictured at left) to oversee the site, and Dr. Clark supervises the site operation. Students Brittany Potter and Mark Sutcliffe (pictured at right) operated the site in 2006.



Photo courtesy of Brittany Potter



Photo courtesy of Brittany Potter

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>August 2007</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td></td></tr> <tr><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td></tr> <tr><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td></tr> <tr><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td></tr> <tr><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td></tr> </table> | | S | M | T | W | T | F | S | | | 1 | 2 | 3 | 4 | | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | <h1>September 2007</h1> | | | | <p>October 2007</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td></tr> <tr><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td></tr> <tr><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td></tr> </table> | | S | M | T | W | T | F | S | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | | |
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| 2 245/120 | 3 246/119 Labor Day CAL closed | 4 Week 36 <i>Reminder:</i> Change dry side bucket and clean foam lid seal. <i>CA88 1978</i> | 5 248/117 <i>MD18 2000</i> | 6 249/116 <i>KY22 1983</i> <i>WV04 1983</i> | 7 250/115 | 1 244/121 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 252/113 | 10 253/112 Annual NADP Technical Meeting, Boulder, CO | 11 Week 37 Annual NADP Technical Meeting, Boulder, CO <i>IA23 1984</i> | 12 255/110 Annual NADP Technical Meeting, Boulder, CO | 13 256/109 Annual NADP Technical Meeting, Boulder, CO Ramadan Begins <i>NY99 1983</i> | 14 257/108 Annual NADP Technical Meeting, Boulder, CO | 15 258/107 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 259/106 | 17 260/105 | 18 Week 38 | 19 262/103 <i>CA67 2000</i> | 20 263/102 <i>TX56 1983</i> | 21 264/101 | 22 265/100 Yom Kippur Begins <i>WY95 1992</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 266/099 First Day of Autumn | 24 267/098 <i>NE99 1985</i> | 25 Week 39 <i>IN22 1984</i> <i>MT97 1990</i> <i>98WI 2001</i> | 26 269/096 <i>OH49 1978</i> <i>OH71 1978</i> <i>99VT 1995</i> | 27 270/095 | 28 271/094 <i>ME08 1999</i> | 29 272/093 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 273/092 <i>ME02 1980</i> | Remember that you need to winterize your Belfort raingage before any frozen precipitation occurs. Consult the procedure pages at the back of the CALendar or section 5.2.2.1 of the <i>NTN Site Operation Manual</i> for more information. Please note the winterization date on the FORF. | | | FL11 Everglades National Park-Research Center operator reported that Hurricane Rita on September 20-21, 2005, damaged the raingage making it inoperable. | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |