

# Manure Analysis

# Prior to Treatment



Submitted By  
**BOWMAN DAIRY SUPPLY**  
 N11831 S FEES RD  
 ALMA CENTER, WI 54611

Submitted For  
 [REDACTED]

Date Sampled  
**4/9/2024**

Date Received  
**12-Apr-2024**

Date Reported  
**15-Apr-2024**

Laboratory Sample #  
**CV53911**

Information Sheet No.  
**M234930**

Account Number  
**BN06604**

Test Package  
**Basic Plus**

Location Pit 1

Sample ID 1

Livestock Type Dairy

Handling Type Liquid

| Analysis                                  | Results as Received      | Results as Dry Basis | LIQUID Application Methods<br>Est. Available Nutrient Credits (as received, lbs / 1000 gal) |             |                          |             |                       | DRY Application Methods<br>Est. Available Nutrient Credits (as received, lbs / ton) |                               |             |      |      |             |                       |      |
|---|--------------------------|----------------------|---|-------------|--------------------------|-------------|-----------------------|---|-------------------------------|-------------|------|------|-------------|-----------------------|------|
|   |                          |                      | Nutrients as lbs/1000 gal   | In 1st Year |                          |             | In 2nd Year           | In 3rd Year   | Nutrients as lbs/ton          | In 1st Year |      |      | In 2nd Year | In 3rd Year           |      |
| Injected                                  | Incorporated* 1-72 Hours | Broadcast**          |   | <1 Hour     | Incorporated* 1-72 Hours | Broadcast** |                       |   |                               |             |      |      |             |                       |      |
| Dry Matter                                | 28.45 %                  |                      |   |             |                          |             |                       |   |                               |             |      |      |             |                       |      |
| Moisture                                  | 71.55 %                  |                      |   |             |                          |             |                       |   |                               |             |      |      |             |                       |      |
| Total N, (TKN)                            | 0.15 %                   | 0.51 %               | 12.08   | 6.04        | 4.83                     | 3.62        | 1.21                  |   | TKN                           | 2.9         | 1.45 | 1.16 | 0.87        | 0.29                  | 0.15 |
| Phosphorus, P <sub>2</sub> O <sub>5</sub> | 0.06 %                   | 0.21 %               | 4.9   | 3.90        | 3.90                     | 3.90        | Residual After Uptake |   | P <sub>2</sub> O <sub>5</sub> | 1.2         | 0.94 | 0.94 | 0.94        | Residual After Uptake |      |
| Potassium, K <sub>2</sub> O               | 0.06 %                   | 0.23 %               | 5.4   | 4.32        | 4.32                     | 4.32        | Residual After Uptake |   | K <sub>2</sub> O              | 1.3         | 1.04 | 1.04 | 1.04        | Residual After Uptake |      |
| Sulfur, S                                 | 0.01 %                   | 0.05 %               | 1.2   | 0.65        | 0.65                     | 0.65        | 0.12                  | 0.06  | S                             | 0.3         | 0.15 | 0.15 | 0.15        | 0.03                  | 0.01 |
| Calcium, Ca                               | 0.10 %                   | 0.36 %               | 8.5   |             |                          |             |                       |   | Ca                            | 2.0         |      |      |             |                       |      |
| Magnesium, Mg                             | 0.03 %                   | 0.12 %               | 2.8   |             |                          |             |                       |   | Mg                            | 0.7         |      |      |             |                       |      |
| Sodium, Na                                | 0.01 %                   | 0.05 %               | 1.2   |             |                          |             |                       |   | Na                            | 0.3         |      |      |             |                       |      |
| Zinc, Zn                                  | 13.3 ppm                 | 47 ppm               | 0.1   |             |                          |             |                       |   | Zn                            | 0.0         |      |      |             |                       |      |
| Manganese, Mn                             | 12.7 ppm                 | 45 ppm               | 0.1   |             |                          |             |                       |   | Mn                            | 0.0         |      |      |             |                       |      |
| Iron, Fe                                  | 330.4 ppm                | 1161 ppm             | 2.8   |             |                          |             |                       |   | Fe                            | 0.7         |      |      |             |                       |      |
| Copper, Cu                                | 24.8 ppm                 | 87 ppm               | 0.2   |             |                          |             |                       |   | Cu                            | 0.1         |      |      |             |                       |      |

### Estimated Value of Available Nutrients:

|                   |                   |                   |                   |                   |                   |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1st Year - \$8.94 | 2nd Year - \$0.76 | 3rd Year - \$0.38 | 1st Year - \$2.15 | 2nd Year - \$0.18 | 3rd Year - \$0.09 |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|

Value based on commercial fertilizer costs as of 02/15/2024.

N(Urea) \$0.56 / lb, P<sub>2</sub>O<sub>5</sub>(Diammonium Phosphate(DAP)) \$0.84 / lb, K<sub>2</sub>O(Potash) \$0.43 / lb, S(Elemental Sulfur) \$0.65 / lb.

\*Surface applied liquid or solid manure incorporated within 1- 72 hours after application.

\*\*Liquid or solid manure left on the surface 4 or more days without incorporation. Wind and high temperature will result in greater loss of available nitrogen.

The Total N (TKN) values are the sum of Ammonium and Organic N. Availability estimates are corrected for ammonia volatilization loss due to each application method.

Application of this manure on the same field for 2 consecutive years increases the availability of N and S by 10%, and for 3 or more years by 15%.

References: Nutrient application guidelines for field, vegetable, and fruit crops in Wisconsin (A2809), Table 9.1

# Liquid manure applied as irrigation will lose more nitrogen from volatilization. An additional 15% of the Liquid TKN value should be subtracted off the Liquid Broadcast TKN Range.

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Submitted By  
**BOWMAN DAIRY SUPPLY**  
 N11831 S FEES RD  
 ALMA CENTER, WI 54611

Submitted For  
**Bowman Dairy Supply**

Date Sampled  
**5/3/2024**

Date Received  
**13-May-2024**

Date Reported  
**15-May-2024**

Laboratory Sample #  
**CW03176**

Information Sheet No.  
**M235495**

Account Number  
**BN06604**

Test Package  
**Basic Plus**

Location No 2 M-F Lagoon

Sample ID 1

Livestock Type Dairy

Handling Type Liquid

| Analysis                                  | Results as Received      | Results as Dry Basis | LIQUID Application Methods<br>Est. Available Nutrient Credits (as received, lbs / 1000 gal) |             |            |             |                       | DRY Application Methods<br>Est. Available Nutrient Credits (as received, lbs / ton) |                               |             |      |      |             |                       |      |
|---|--------------------------|----------------------|---|-------------|------------|-------------|-----------------------|---|-------------------------------|-------------|------|------|-------------|-----------------------|------|
|   |                          |                      | Nutrients as lbs/1000 gal   | In 1st Year |            |             | In 2nd Year           | In 3rd Year   | Nutrients as lbs/ton          | In 1st Year |      |      | In 2nd Year | In 3rd Year           |      |
| Injected                                  | Incorporated* 1-72 Hours | Broadcast**          |   | <1 Hour     | 1-72 Hours | Broadcast** |                       |   |                               |             |      |      |             |                       |      |
| Dry Matter                                | 5.32 %                   |                      |   |             |            |             |                       |   |                               |             |      |      |             |                       |      |
| Moisture                                  | 94.68 %                  |                      |   |             |            |             |                       |   |                               |             |      |      |             |                       |      |
| Total N, (TKN)                            | 0.20 %                   | 3.78 %               | 16.75   | 8.38        | 6.70       | 5.03        | 1.68                  |   |                               |             |      |      |             |                       |      |
| Phosphorus, P <sub>2</sub> O <sub>5</sub> | 0.09 %                   | 1.72 %               | 7.6   | 6.09        | 6.09       | 6.09        | Residual After Uptake |   | TKN                           | 4.0         | 2.01 | 1.61 | 1.21        | 0.40                  | 0.20 |
| Potassium, K <sub>2</sub> O               | 0.19 %                   | 3.59 %               | 15.9  | 12.72       | 12.72      | 12.72       | Residual After Uptake |   | P <sub>2</sub> O <sub>5</sub> | 1.8         | 1.46 | 1.46 | 1.46        | Residual After Uptake |      |
| Sulfur, S                                 | 0.02 %                   | 0.45 %               | 2.0   | 1.09        | 1.09       | 1.09        | 0.20                  | 0.10  | K <sub>2</sub> O              | 3.8         | 3.06 | 3.06 | 3.06        | Residual After Uptake |      |
| Calcium, Ca                               | 0.10 %                   | 1.94 %               | 8.6   |             |            |             |                       |   | S                             | 0.5         | 0.26 | 0.26 | 0.26        | 0.05                  | 0.02 |
| Magnesium, Mg                             | 0.04 %                   | 0.73 %               | 3.3   |             |            |             |                       |   | Ca                            | 2.1         |      |      |             |                       |      |
| Sodium, Na                                | 0.05 %                   | 0.88 %               | 3.9   |             |            |             |                       |   | Mg                            | 0.8         |      |      |             |                       |      |
| Zinc, Zn                                  | 26.9 ppm                 | 506 ppm              | 0.2   |             |            |             |                       |   | Na                            | 0.9         |      |      |             |                       |      |
| Manganese, Mn                             | 19.2 ppm                 | 361 ppm              | 0.2   |             |            |             |                       |   | Zn                            | 0.1         |      |      |             |                       |      |
| Iron, Fe                                  | 117.9 ppm                | 2215 ppm             | 1.0   |             |            |             |                       |   | Mn                            | 0.0         |      |      |             |                       |      |
| Copper, Cu                                | 35.5 ppm                 | 667 ppm              | 0.3   |             |            |             |                       |   | Fe                            | 0.2         |      |      |             |                       |      |
|   |                          |                      |   |             |            |             |                       |   | Cu                            | 0.1         |      |      |             |                       |      |

Estimated Value of Available Nutrients:

|                    |                   |                   |                   |                   |                   |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1st Year - \$15.80 | 2nd Year - \$1.01 | 3rd Year - \$0.51 | 1st Year - \$3.79 | 2nd Year - \$0.24 | 3rd Year - \$0.12 |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|

Value based on commercial fertilizer costs as of 05/09/2024.

N(Urea) \$0.56 / lb, P<sub>2</sub>O<sub>5</sub>(Diammonium Phosphate(DAP)) \$0.88 / lb, K<sub>2</sub>O(Potash) \$0.42 / lb, S(Elemental Sulfur) \$0.37 / lb.

\*Surface applied liquid or solid manure incorporated within 1- 72 hours after application.

\*\*Liquid or solid manure left on the surface 4 or more days without incorporation. Wind and high temperature will result in greater loss of available nitrogen.

The Total N (TKN) values are the sum of Ammonium and Organic N. Availability estimates are corrected for ammonia volatilization loss due to each application method.

Application of this manure on the same field for 2 consecutive years increases the availability of N and S by 10%, and for 3 or more years by 15%.

References: Nutrient application guidelines for field, vegetable, and fruit crops in Wisconsin (A2809), Table 9.1

# Liquid manure applied as irrigation will lose more nitrogen from volatilization. An additional 15% of the Liquid TKN value should be subtracted off the Liquid Broadcast TKN Range.

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# Manure Analysis

30 inches of rain 60 days later still increased nitrogen in the lagoon



Submitted By  
**BOWMAN DAIRY SUPPLY**  
 N11831 S FEES RD  
 ALMA CENTER, WI 54611

Submitted For  
**Bowman Dairy Supply**

Date Sampled  
**8/1/2024**

Date Received  
**20-Aug-2024**

Date Reported  
**22-Aug-2024**

Laboratory Sample #  
**CX62652**

Information Sheet No.  
**M236669**

Account Number  
**BN06604**

Test Package  
**Basic Plus**

Location **Location 3 M-F Lagoon**

Sample ID **1**

Livestock Type **Dairy**

Handling Type **Liquid**

| Analysis                                  | Results as Received | Results as Dry Basis | LIQUID Application Methods<br>Est. Available Nutrient Credits (as received, lbs / 1000 gal) |             |            |             |             | DRY Application Methods<br>Est. Available Nutrient Credits (as received, lbs / ton) |                               |             |      |      |             |             |                       |
|---|---------------------|----------------------|---|-------------|------------|-------------|-------------|---|-------------------------------|-------------|------|------|-------------|-------------|-----------------------|
|   |                     |                      | Nutrients as lbs/1000 gal   | In 1st Year |            |             | In 2nd Year | In 3rd Year   | Nutrients as lbs/ton          | In 1st Year |      |      | In 2nd Year | In 3rd Year |                       |
| Injected                                  | Incorporated*       | Broadcast**          |   | <1 Hour     | 1-72 Hours | Broadcast** |             |   |                               |             |      |      |             |             |                       |
| Dry Matter                                | 2.40 %              |                      |   |             |            |             |             |   |                               |             |      |      |             |             |                       |
| Moisture                                  | 97.60 %             |                      |   |             |            |             |             |   |                               |             |      |      |             |             |                       |
| Total N, (TKN)                            | 0.15 %              | 6.21 %               | 12.41   | 6.21        | 4.96       | 3.72        | 1.24        |   | TKN                           | 3.0         | 1.49 | 1.19 | 0.89        | 0.30        | 0.15                  |
| Phosphorus, P <sub>2</sub> O <sub>5</sub> | 0.06 %              | 2.45 %               | 4.9   | 3.92        | 3.92       | 3.92        |             | Residual After Uptake   | P <sub>2</sub> O <sub>5</sub> | 1.2         | 0.94 | 0.94 | 0.94        |             | Residual After Uptake |
| Potassium, K <sub>2</sub> O               | 0.14 %              | 6.01 %               | 12.0  | 9.62        | 9.62       | 9.62        |             | Residual After Uptake   | K <sub>2</sub> O              | 2.9         | 2.31 | 2.31 | 2.31        |             | Residual After Uptake |
| Sulfur, S                                 | 0.02 %              | 0.70 %               | 1.4   | 0.77        | 0.77       | 0.77        | 0.14        | 0.07  | S                             | 0.3         | 0.19 | 0.19 | 0.19        | 0.03        | 0.02                  |
| Calcium, Ca                               | 0.07 %              | 3.09 %               | 6.2   |             |            |             |             |   | Ca                            | 1.5         |      |      |             |             |                       |
| Magnesium, Mg                             | 0.03 %              | 1.22 %               | 2.4   |             |            |             |             |   | Mg                            | 0.6         |      |      |             |             |                       |
| Sodium, Na                                | 0.03 %              | 1.41 %               | 2.8   |             |            |             |             |   | Na                            | 0.7         |      |      |             |             |                       |
| Zinc, Zn                                  | 25.9 ppm            | 1079 ppm             | 0.2   |             |            |             |             |   | Zn                            | 0.1         |      |      |             |             |                       |
| Manganese, Mn                             | 11.7 ppm            | 488 ppm              | 0.1   |             |            |             |             |   | Mn                            | 0.0         |      |      |             |             |                       |
| Iron, Fe                                  | 76.0 ppm            | 3167 ppm             | 0.6   |             |            |             |             |   | Fe                            | 0.2         |      |      |             |             |                       |
| Copper, Cu                                | 23.8 ppm            | 990 ppm              | 0.2   |             |            |             |             |   | Cu                            | 0.1         |      |      |             |             |                       |

**Estimated Value of Available Nutrients:**

|                    |                   |                   |                   |                   |                   |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1st Year - \$11.25 | 2nd Year - \$0.75 | 3rd Year - \$0.37 | 1st Year - \$2.70 | 2nd Year - \$0.18 | 3rd Year - \$0.09 |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|

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