

Supplemental Table S1. Complete Net N mineralized results (Net N<sub>min</sub><sup>1</sup>) from the feather meal (FM), mixed source (MIX), and pelleted poultry litter (PPL) fertilizers incubated at 4, 10, 20 and 30 °C for 120 d in a Cecil sandy clay loam soil.

| Time of<br>incubation<br>(Days) | Fertilizer | Temperature  |                  |       |     |       |      |       |      |
|---------------------------------|------------|--|------------------|-------|-----|-------|------|-------|------|
|                                 |            | 4°C  |                  | 10°C  |     | 20°C  |      | 30°C  |      |
|                                 |            | Net N <sub>min</sub> (mg inorganic N·kg <sup>-1</sup> dry material) <sup>1</sup> |                  |       |     |       |      |       |      |
| 2                               | FM         | 0.56   | A a <sup>2</sup> | 3.72  | A a | 3.66  | A a  | 0.00  | A a  |
|                                 | MIX        | 0.00   | A a              | 4.61  | A a | 2.00  | A a  | 0.00  | A a  |
|                                 | PPL        | 0.00   | A a              | 0.00  | A a | 4.20  | A a  | 1.77  | A a  |
| 4                               | FM         | 12.31  | AB ab            | 6.17  | A b | 22.02 | A ab | 34.09 | A a  |
|                                 | MIX        | 6.01   | B ab             | 2.08  | A b | 3.08  | C b  | 9.71  | AB a |
|                                 | PPL        | 16.91  | A a              | 1.31  | A a | 10.17 | B a  | 5.45  | B a  |
| 7                               | FM         | 15.08  | Aa               | 24.10 | Aa  | 32.68 | Aa   | 36.65 | Aa   |
|                                 | MIX        | 2.32   | Ab               | 1.77  | Bb  | 18.91 | Aa   | 6.75  | Bb   |
|                                 | PPL        | 14.28  | Aa               | 16.98 | Aa  | 16.13 | Aa   | 0.00  | Bb   |
| 14                              | FM         | 31.84  | A c              | 41.66 | A b | 53.71 | A a  | 45.22 | A ab |
|                                 | MIX        | 18.87  | A a              | --    |     | 26.69 | B a  | 16.88 | B a  |
|                                 | PPL        | 15.70  | A a              | 11.97 | B a | 11.06 | C a  | 0.06  | C b  |
| 35                              | FM         | 62.00  | A b              | 58.90 | A b | 65.43 | A ab | 72.04 | A a  |
|                                 | MIX        | 32.67  | B a              | 29.42 | B a | 30.20 | B a  | 32.36 | B a  |
|                                 | PPL        | 23.61  | C a              | 20.72 | B a | 13.47 | C a  | 11.53 | C a  |
| 56                              | FM         | 57.52  | Ab               | 60.37 | Ab  | 61.84 | Ab   | 95.88 | Aa   |
|                                 | MIX        | 29.34  | Bb               | 30.86 | Bb  | 41.93 | Aab  | 46.86 | Ba   |
|                                 | PPL        | 13.36  | Ca               | 15.24 | Ca  | 14.77 | Ba   | 20.75 | Ba   |
| 88                              | FM         | 59.52  | Aa               | 63.24 | Aa  | 56.96 | Aa   | 75.33 | Aa   |
|                                 | MIX        | 33.50  | Ba               | 34.59 | Ba  | 47.34 | Aa   | 47.12 | Ba   |
|                                 | PPL        | 14.17  | Cab              | 18.20 | Ca  | 16.11 | Aab  | 8.63  | Cb   |
| 120                             | FM         | 65.22  | A a              | 60.53 | A a | 73.70 | A a  | 72.14 | A a  |
|                                 | MIX        | 41.29  | B ab             | 36.24 | B b | 58.85 | A a  | 40.67 | B ab |
|                                 | PPL        | 17.15  | C a              | 22.46 | C a | 18.48 | B a  | 14.98 | C a  |

<sup>1</sup> Net N<sub>min</sub> = Inorganic N<sub>d=x</sub> - Inorganic N Control<sub>t=x</sub> - Inorganic N of Material<sub>t=0</sub>

<sup>2</sup> Different uppercase letters represent significant differences within fertilizers at each sampling point, and different lowercase letters represents significant differences among different temperatures for each fertilizer and incubation time according to Tukey's honest significant difference test (P<0.05).

Supplemental Table S2. Complete Net N mineralized results (Net N<sub>min</sub><sup>1</sup>) from the feather meal (FM), mixed source (MIX), and pelleted poultry litter (PPL) fertilizers incubated at 4, 10, 20 and 30 °C for 120 d in a Tifton loamy sand soil.

| Time of<br>incubation<br>(Days) | Fertilizer | Temperature  |                  |       |      |       |      |       |      |
|---------------------------------|------------|--|------------------|-------|------|-------|------|-------|------|
|                                 |            | 4°C  |                  | 10°C  |      | 20°C  |      | 30°C  |      |
|                                 |            | Net N <sub>min</sub> (mg inorganic N·kg <sup>-1</sup> dry material) <sup>1</sup> |                  |       |      |       |      |       |      |
| 2                               | FM         | 3.15   | A a <sup>2</sup> | 3.51  | A a  | 3.38  | A a  | 4.15  | B a  |
|                                 | MIX        | 0.24   | A b              | 3.31  | A ab | 0.00  | A b  | 4.02  | B a  |
|                                 | PPL        | 2.77   | A ab             | 0.00  | A b  | 4.94  | A ab | 11.26 | A a  |
| 4                               | FM         | 1.86   | A bc             | 0.00  | B c  | 14.46 | A ab | 18.60 | A a  |
|                                 | MIX        | 1.15   | A a              | 1.10  | B a  | 0.91  | B a  | 4.39  | A a  |
|                                 | PPL        | 2.24   | A b              | 9.65  | A ab | 13.26 | A a  | 8.57  | A ab |
| 7                               | FM         | 12.56  | Ba               | 12.33 | Aa   | 23.02 | Aa   | 13.64 | Aa   |
|                                 | MIX        | 2.66   | Cab              | 0.00  | Ab   | 9.92  | Aab  | 19.19 | Aa   |
|                                 | PPL        | 21.64  | Aa               | 8.65  | Aab  | 7.76  | Aab  | 4.37  | Ab   |
| 14                              | FM         | 28.06  | A a              | 28.68 | A a  | 44.01 | A a  | 33.82 | A a  |
|                                 | MIX        | 6.04   | B a              | 9.20  | B a  | 21.71 | AB a | 17.88 | AB a |
|                                 | PPL        | 15.21  | AB a             | 7.95  | B ab | 6.97  | B ab | 0.00  | B b  |
| 35                              | FM         | 50.74  | A ab             | 56.51 | A a  | 48.93 | A ab | 43.39 | A b  |
|                                 | MIX        | 20.31  | B a              | 28.73 | B a  | 30.62 | A a  | 35.51 | A a  |
|                                 | PPL        | 11.04  | C a              | 15.33 | C a  | 3.08  | B b  | 0.00  | B b  |
| 56                              | FM         | 58.61  | Aa               | 53.57 | Aab  | 43.43 | Ab   | 46.99 | Aab  |
|                                 | MIX        | 27.72  | Ba               | 27.48 | Ba   | 36.37 | Aa   | 29.44 | Aa   |
|                                 | PPL        | 8.91   | Cab              | 10.43 | Ca   | 2.45  | Bbc  | 0.00  | Bc   |
| 88                              | FM         | 62.18  | Aa               | 57.61 | Aab  | 46.20 | Abc  | 33.71 | Ac   |
|                                 | MIX        | 30.14  | Bab              | 24.15 | Bb   | 44.59 | Aa   | 29.95 | Aab  |
|                                 | PPL        | 8.81   | Ca               | 7.94  | Ca   | 15.76 | Aa   | 0.00  | Ba   |
| 120                             | FM         | 61.91  | A a              | 64.55 | A a  | 50.09 | A b  | 42.13 | A b  |
|                                 | MIX        | 28.43  | B b              | 31.55 | B b  | 49.49 | A a  | 26.24 | A b  |
|                                 | PPL        | 13.22  | C a              | 9.74  | C a  | 10.76 | B a  | 0.00  | B a  |

<sup>1</sup> Net N<sub>min</sub> = Inorganic N<sub>d=x</sub> - Inorganic N Control<sub>t=x</sub> - Inorganic N of Material<sub>t=0</sub>

<sup>2</sup>Different uppercase letters represent significant differences between fertilizers at each sampling point, and different lowercase letters represents significant differences among different temperatures for each fertilizer and incubation time according to Tukey's honest significant difference test (P<0.05).