Table A 1. Effects of planting pattern and phosphorus application on topsoil mechanical aggregate.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Treatment | ＞2 | 2–1 | 1–0.5 | 0.5–0.25 | ＜0.25 |
| *F* | *P* | *F* | *P* | *F* | *P* | *F* | *P* | *F* | *P* |
| P level | 63.6 | \*\*\* | 0.9 | ns | 18.2 | \*\*\* | 46.8 | \*\*\* | 21.0 | \*\*\* |
| Planting pattern | 43.0 | \*\*\* | 80.4 | \*\*\* | 8.1 | \*\*\* | 76.6 | \*\*\* | 187.2 | \*\*\* |
| P level × Planting pattern | 69.9 | \*\*\* | 14.2 | \*\*\* | 7.4 | \*\*\* | 110.2 | \*\*\* | 71.7 | \*\*\* |

*F*: equality of variances; *P*: significant test. \*Significant at *P<*0.05. \*\*Significant at *P<*0.01. \*\*\*Significant at *P*<0.001. ns: not significant. Data are presented as mean ± standard error.

Table A 2. Effects of planting pattern and phosphorus application on topsoil water-stable aggregate.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Treatment | ＞2 | 2–1 | 1–0.5 | 0.5–0.25 | 0.25–0.053 | ＜0.053 |
| *F* | *P* | *F* | *P* | *F* | *P* | *F* | *P* | *F* | *P* | *F* | *P* |
| P level | 33.0 | \*\*\* | 97.8 | \*\*\* | 4.4 | \* | 9.2 | \*\* | 10.1 | \*\* | 191.1 | \*\*\* |
| Planting pattern | 19.5 | \*\*\* | 90.4 | \*\*\* | 99.9 | \*\*\* | 4.8 | \*\* | 24.4 | \*\*\* | 54.9 | \*\*\* |
| P level × Planting pattern | 1.6 | ns | 0.3 | ns | 4.8 | \*\* | 0.2 | ns | 6.0 | \*\* | 3.0 | ns |

*F*: equality of variances; *P*: significant test. \*Significant at *P<*0.05. \*\*Significant at *P<*0.01. \*\*\*Significant at *P*<0.001. ns: not significant. Data are presented as mean ± standard error.

Table A 3. Effects of planting pattern and phosphorus application on topsoil organic carbon concentration in aggregates.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Treatment | ＞2 | 2–1 | 1–0.5 | 0.5–0.25 | ＜0.25 |
| *F* | *P* | *F* | *P* | *F* | *P* | *F* | *P* | *F* | *P* |
| P level | 193.5 | \*\*\* | 35.8 | \*\*\* | 29.3 | \*\*\* | 9.6 | \*\*\* | 47.0 | \*\*\* |
| Planting pattern | 100.3 | \*\*\* | 96.1 | \*\*\* | 42.3 | \*\*\* | 3.6 | \*\*\* | 8.9 | \*\*\* |
| P level × Planting pattern | 11.7 | \*\*\* | 28.2 | \*\*\* | 36.9 | \*\*\* | 8.8 | \*\*\* | 11.4 | \*\*\* |

*F*: equality of variances; *P*: significant test. \*Significant at *P<*0.05. \*\*Significant at *P<*0.01. \*\*\*Significant at *P*<0.001. ns: not significant. Data are presented as mean ± standard error.

Table A 4. Effects of planting pattern and phosphorus application on topsoil organic carbon contribution rate in aggregates.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Treatment | ＞2 | 2–1 | 1–0.5 | 0.5–0.25 | ＜0.25 |
| *F* | *P* | *F* | *P* | *F* | *P* | *F* | *P* | *F* | *P* |
| P level | 5.6 | \* | 15.1 | \*\*\* | 0.5 | ns | 2.3 | ns | 4.1 | ns |
| Planting pattern | 50.6 | \*\*\* | 7.7 | \*\*\* | 20.2 | \*\*\* | 70.4 | \*\*\* | 161.3 | \*\*\* |
| P level × Planting pattern | 39.8 | \*\*\* | 2.0 | ns | 11.4 | \*\*\* | 62.3 | \*\*\* | 39.7 | \*\*\* |

*F*: equality of variances; *P*: significant test. \*Significant at *P<*0.05. \*\*Significant at *P<*0.01. \*\*\*Significant at *P*<0.001. ns: not significant. Data are presented as mean ± standard error.