Table S6 Multivariate analysis of variance by four-way ANOVA of the economical details including; crop yield (n=12), output (n=12) and net income (n=12)

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| --- | --- | --- |
| Sources | df | F value |
| Yield | Output | Net income |
| Rotation | 1 | 36.2\*\*\* | 354.8\*\*\* | 158.8\*\*\* |
| Herbicide | 1 | 4.3\*\* | 1481.2\*\*\* | 1486.2\*\*\* |
| Tillage | 1 | 11.4\*\* | 3.4\* | 2.3\* |
| Rotation \* Herbicide | 1 | 6.0\*\* | 74.1\*\*\* | 74.1\*\*\* |
| Rotation \* Tillage | 1 | 3.6\* | 0.1n.s. | 0.1n.s. |
| Herbicide \* Tillage | 1 | 1.2n.s. | 1.3n.s. | 1.3 n.s. |
| Rotation \* Herbicide \* Tillage | 1 | 0.2n.s. | 0.7n.s. | 0.7n.s. |
| Year | 1 | 0n.s. | 49.5\*\*\* | 49.5\*\*\* |
| Year \* Rotation | 1 | 0n.s. | 9.1\*\* | 9.1\*\* |
| Year \* Herbicide | 1 | 0n.s. | 26.6\*\*\* | 26.6\*\*\* |
| Year \* Tillage | 1 | 0n.s. | 0n.s. | 0n.s. |
| Year \* Rotation \* Herbicide | 1 | 0n.s. | 4.6\* | 4.6\* |
| Year \* Rotation \* Tillage | 1 | 0n.s. | 1.6n.s. | 1.6n.s. |
| Year \* Herbicide \* Tillage | 1 | 0n.s. | 1.1n.s. | 1.1n.s. |
| Year \* Rotation \* Herbicide \* Tillage | 1 | 0n.s. | 3.3\* | 3.3\* |

The categorical factors are year, rotation, herbicide and tillage. Presented are the F-values with the level of significance; \* *P* <0.05, \*\* *P* <0.01, \*\*\**P*<0.001, n.s.-no significant.