Table S5 Multivariate analysis of variance by three-way ANOVA of the crop morphological parameters including plant height (H; n=12), leaf area index (LAI; n=12), and crop productivity parameter including aboveground biomass (ABM: n=12)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sources | df | F-value | | | |
| Morphological parameters | |  | Productive parameter |
| H | LAI |  | ABM |
| Crop species | 3 | 1088.7\*\*\* | 175.45\*\*\* |  | 609.80\*\* |
| Herbicide | 1 | 13.01\*\*\* | 4.56n.s. |  | 5.43n.s. |
| Tillage | 1 | 2.09n.s. | 17.49\*\*\* |  | 0.15n.s. |
| Crop species \*Herbicide | 3 | 2.68n.s. | 0.74n.s. |  | 5.65n.s. |
| Crop species \*Tillage | 3 | 0.61n.s. | 7.48\*\*\* |  | 1.98n.s. |
| Herbicide\*Tillage | 1 | 1.26n.s. | 0.003n.s. |  | 0.07n.s. |
| Crop species \*Herbicide\*Tillage | 3 | 0.76n.s. | 0.84n.s. |  | 0.37n.s. |

The categorical factors are crop species (including the winter wheat, summer maize, garlic and soybean), 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.