Appendix

**Table A1.** Robustness checking results.

|  |  |  |
| --- | --- | --- |
|  | Dependent variable – total wheat yield | |
| Variables | (FE) | (RE) |
| Ln Land (ha) | 0.448\*\*\* | 0.608\*\*\* |
|  | (19.30) | (27.47) |
| Ln Labour (1000 UZS) | 0.161\*\*\* | 0.154\*\*\* |
|  | (11.71) | (10.33) |
| Ln Fertilizer (1000 UZS) | 0.388\*\*\* | 0.193\*\*\* |
|  | (16.48) | (9.84) |
| Ln Irrig\_Water (1000m3) | 0.045\* | 0.098\*\*\* |
|  | (2.03) | (4.25) |
| Ln Winter Tem (°C) | 0.017 | 0.034\*\* |
|  | (1.41) | (3.10) |
| Ln Spring Tem (°C) | 0.697\*\*\* | 1.394\*\*\* |
|  | (2.65) | (7.26) |
| Ln Summer Tem (°C) | -1.942\*\*\* | -2.686\*\*\* |
|  | (-6.18) | (-10.24) |
| Ln Autumn Tem (°C) | 0.427\*\* | -0.115 |
|  | (2.61) | (-1.00) |
| Ln Winter Pre (mm) | -0.000 | 0.033 |
|  | -0.00 | (1.52) |
| Ln Spring Pre (mm) | -0.010 | -0.141\*\*\* |
|  | (-0.45) | (-6.45) |
| Ln Summer Pre (mm) | 0.002 | 0.014 |
|  | (0.20) | (1.09) |
| Ln Autumn Pre (mm) | 0.007 | 0.002\*\*\* |
|  | (0.37) | (0.25) |
| Ln Groundwater Salinity (gr l-1) | 0.113\*\*\* | 0.121\*\*\* |
|  | (5.02) | (4.82) |
| Ln Soil Salinity (gr l-1) | -0.092\*\*\* | -0.113\*\*\* |
|  | (-4.28) | (-4.68) |
| \_cons | 5.368\*\*\* | 7.692\*\*\* |
|  | (8.36) | (12.33) |
| *N* | 644 | 644 |
| *R*2 | 0.843 | 0.891 |

Notes: *t* statistics in parentheses \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001. T-value in brackets. (In the panel data, the Hausman test shows the appropriate model. To check for robustness, we employed a random effect model, Table A1; results are similar in both models).