

**Table S2.** List of abbreviations

<b>Abbreviation</b>	<b>Definition</b>
<b>AV</b>	Ammonia emission or volatilization
<b>YSFP</b>	Yield scaled fertilizer productivity
<b>NUE</b>	Nitrogen use efficiency
<b>NAE</b>	Nitrogen agronomic efficiency
<b>PAN</b>	Productivity of applied nitrogen
<b>SOM</b>	Soil organic matter content
<b>STN</b>	Soil total N content
<b>CEC</b>	Cation exchange capacity
<b>N</b>	Nitrogen
<b>NH<sub>4</sub><sup>+</sup></b>	Ammonium ions
<b>OH<sup>-</sup></b>	Hydroxyl anion
<b>CMDC</b>	China Meteorological Data Service Center
<b>ISI</b>	Web of Science
<b>CNKI</b>	China National Knowledge Infrastructure
<b>SE</b>	Standard error
<b>STD</b>	Standard deviation
<b>CV</b>	Coefficient of variance
<b>CI</b>	Confidence interval
<b>GY</b>	Grain yield
<b>NU</b>	Nitrogen uptake
<b>OCF</b>	All mineral fertilizers except urea
<b>IU</b>	Improved nitrogen fertilizers (The coated and slow released N fertilizers)
<b>OA</b>	Organic amendments
<b>CMA</b>	Comprehensive Meta-Analysis
<b>ES</b>	Effect size
<b>SEM</b>	Structural equation model
<b>T</b>	Temperature
<b>P</b>	Precipitation
<b>C</b>	Clay
<b>FT</b>	Fertilizer type
<b>FR</b>	Fertilizer rate
<b>AD</b>	Application depth
<b>A</b>	Amendments