

**Table S1.** Average maize yields and N inputs since 2015 to 2018 at the NCP experimental site (located at Hebei, Shandong, Henan, and Shanxi provinces, China) based on published articles [8,54–63].

Region	Samples	N input (kg ha <sup>-1</sup> )	Yield (t ha <sup>-1</sup> )	Ears Per m <sup>2</sup>	Kernels Per ear	100-kernels Weight (g)
Hebei	48	246±3	10.5±0.1	6.9±0.1	401±21	34.6±0.9
Shandong	16	224±7	9.3±0.2	6.7±0.9	514±11	33.7±1.5
Henan & Shanxi	4	223±8	9.7±0.2	6.7±0	527±17	31.7±0.4
Total	68	240±3	10.1±0.1	6.9±0.1	480±14	33.8±1.0

Samples=68.

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