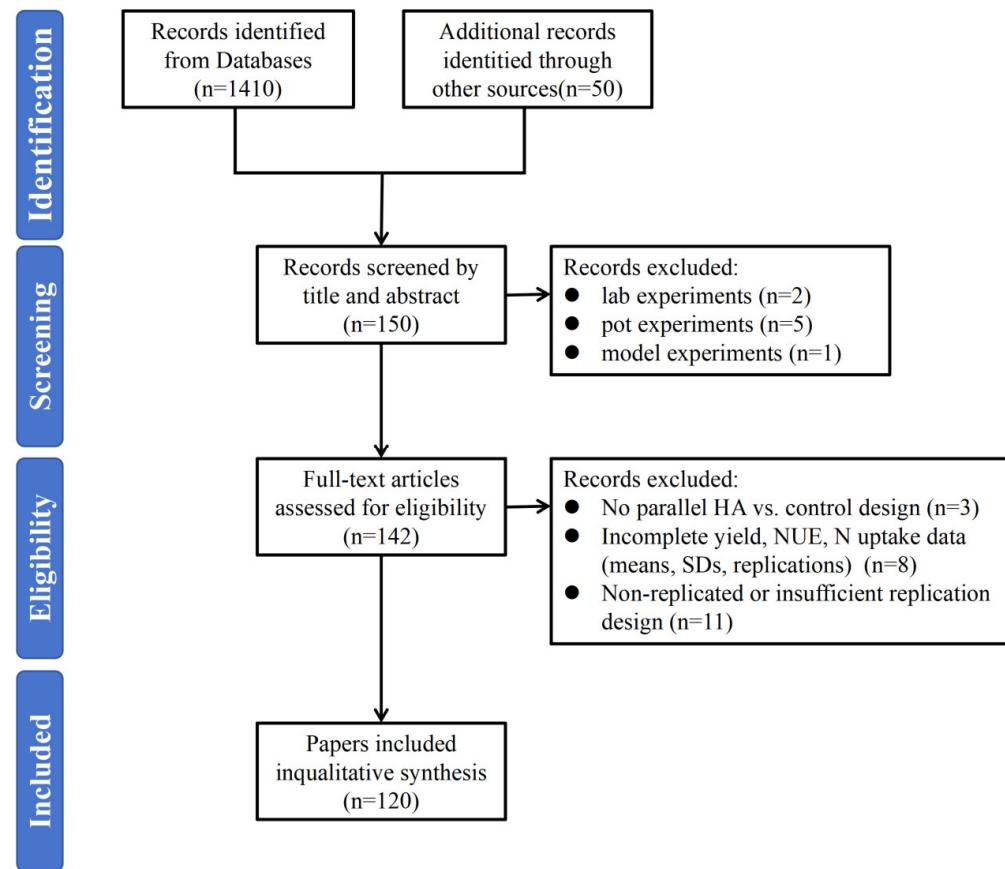
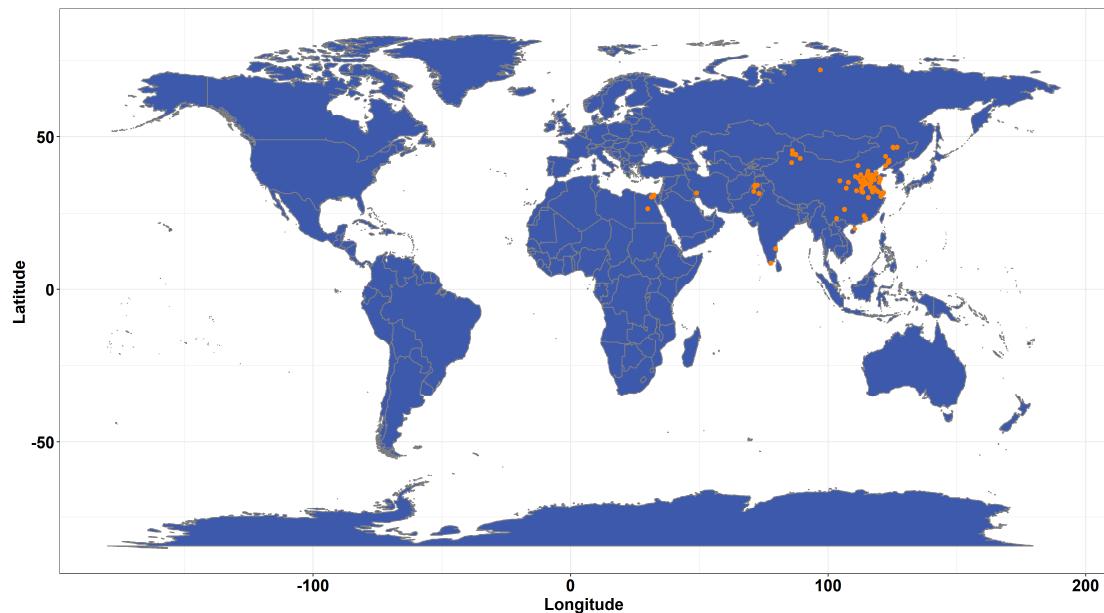


# The Impact of Humic Acid Fertilizers on Crop Yield and Nitrogen

## Use Efficiency: A meta-analysis



**Figure S1** Literatures retrieval and screening process



**Figure S2.** The geographical locations of the study sites included in this analysis

**Table S1** Comparison of different subgroups

Category types		Yield	NUE	N uptake
Category 1	Category 2		P	
MAT<=10	10<MAT<=20	0.68	0.34	0.22
MAT<=10	MAT>20	0.92	0.24	0.93
10<MAT<=20	MAT>20	0.49	0.56	<0.05
MAP<=300	300<MAP<=600	<0.05	<0.05	0.24
MAP<=300	MAP>600	0.74	<0.05	0.35
300<MAP<=600	MAP>600	<0.05	0.28	0.71
Upland cereal	Paddy rice	0.70	0.85	57
Upland cereal	Cash crop	0.83	0.48	<0.05
Paddy rice	Cash crop	0.85	0.74	0.10
NAR<=100	100<NAR<=200	0.35	0.71	<0.05
NAR<=100	NAR>200	0.98	0.17	0.32
100<NAR<=200	NAR>200	0.44	0.21	0.28
Single fertilization	Split fertilization	0.35	0.71	0.22
pH<=6	6<pH<=8	0.23	0.14	0.97
pH<=6	pH>8	0.65	0.17	0.13
6<pH<=8	pH>8	<0.05	<0.05	<0.05
SOC<=10	SOC>10	0.62	0.86	<0.05
TN<=0.8	0.8<TN<=1.2	0.20	0.20	<0.05
TN<=0.8	TN>1.2	<0.05	<0.05	0.28
0.8<TN<=1.2	TN>1.2	<0.01	<0.01	0.51