Supplementary Information

Optimizing the N Rate for Maize Forage to Balance Profits and N Ecological Stress

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Table S1. The regression equations of forage yield, economic profit, ecological profit, $\Delta_{Soil}(NO_3^-N)$ based on the two-year measured data.

Objective	year	Regression equation	R^2
Forage yield	2017	$Y = -0.0413x^2 + 33.05x + 14346$	0.98
(kg ha^{-1})	2018	$Y = -0.0449x^2 + 34.47x + 14057$	0.99
Economic profit	2017	$Y = -0.008089x^2 + 5.0527x + 1902.6$	0.95
(USD ha^{-1})	2018	$Y = -0.008777x^2 + 5.3299x + 1846$	0.98
Ecological profit	2017	$Y= -0.010102x^2 + 5.009x + 1857.5$	0.90
(USD ha^{-1})	2018	$Y = -0.010789x^2 + 0.5286x + 1801$	0.97
$\Delta_{Soil}(NO_3^-N)$	2017	$Y = 0.5191x - 95.03$	0.98
(kg N ha^{-1})	2018	$Y = 0.4878x - 91.03$	0.98

Note: Y is the objective yield, and x is N application rate.