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*Supplement of*

## **Effect of legume intercropping on N<sub>2</sub>O emissions and CH<sub>4</sub> uptake during maize production in the Great Rift Valley, Ethiopia**

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Table S1: Experimental design of the intercropping trial

No.	Crop type	Treatment	2015		C:N forage	2016	
			Mineral N kg ha <sup>-1</sup>	P kg ha <sup>-1</sup>	legume	Mineral N kg ha <sup>-1</sup>	P kg ha <sup>-1</sup>
1	Maize monocrop	Unfertilized	0	-	-	0	-
		Fertilized	64	20	-	64	10
2	Maize+Cr <sup>a</sup>	3weeks	64	20	12.6	32	10
		6 weeks	64	20		32	10
3	Maize+Lb <sup>b</sup>	3 weeks	64	20	10.07	32	10
		6 weeks	64	20		32	10

Cr<sup>a</sup> Crotalaria, Lb<sup>b</sup> Lablab



Figure S1: Custom-made aluminum chamber used for GHG flux measurement between maize rows; here in the treatment M-F (unfertilized maize).

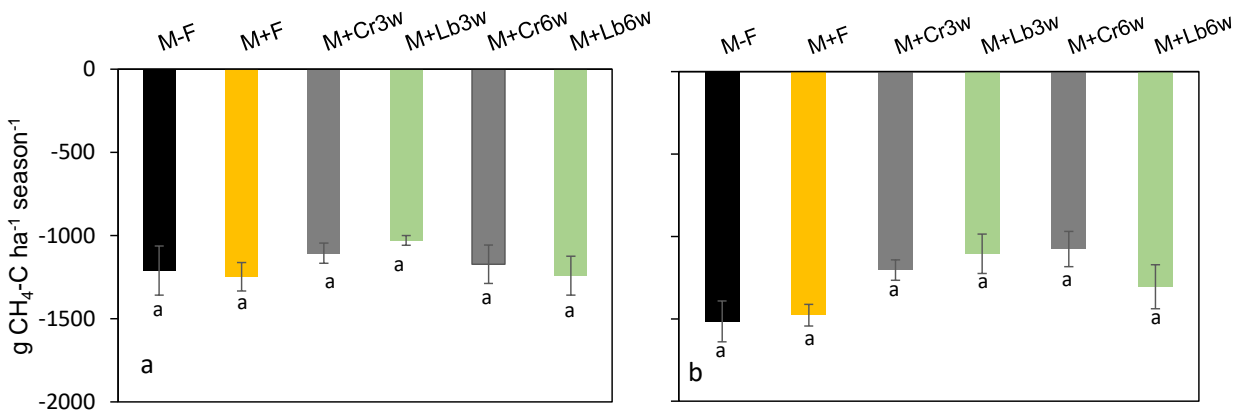


Figure S2: Cumulative seasonal CH<sub>4</sub>-C in 2015 (a) and 2016 (b). Error bars denote SEM (n=4). Different letters indicate insignificant differences between treatments. For treatment names, see Fig. 2.