ANOVA
Table 1 ANOVA of cultivation, organic versus conventional nutrient management, sampling time, and year effects on trace global warming gases, soil biological activity, and soil properties in 2014 and 2015.

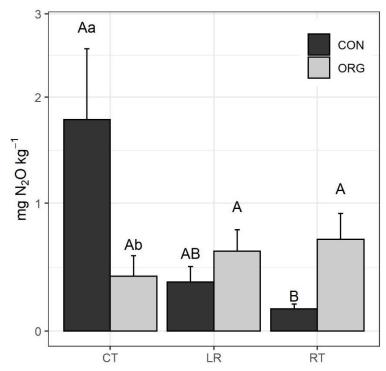
	$N_2O$	$CO_2$	NMN	MBC	MBN	DOC	N	H <sub>2</sub> O
Cultivation (C)							•	
Nutrient (N)		***		•	**	*	**	
Sampling (S)	***	***	***		***		***	***
Year (Y)	***		***	**	***	**	***	
C:N	*	**					**	
C:S		**					**	
C:Y							**	
N:S		•				*	***	
N:Y	**	***	*			*	***	*
S:Y		***	***	***	***		***	***
C:N:S					*		**	
C:N:Y		*					***	
C:S:Y								
N:S:Y			**				***	
C:N:S:Y		*	*		*		**	

# Means separation table for significant main effects

There were no significant main effects without higher-order interactions for  $CO_2$ ,  $H_2O$ , NMN, MBN, MBC, or N

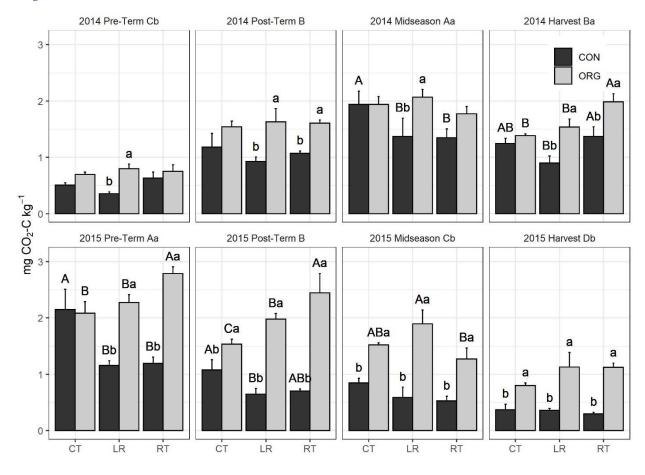
		$N_2O$	DOC
Cultivation	CT	1.1(0.41)	60(1.6)
	LR	0.49(0.1)	59(2.1)
	RT	0.44(0.11)	54(1.7)
Nutrient	CON	0.77(0.27)	54b(1.5)
	ORG	0.58(0.1)	61a(1.4)
Sampling	Pre-Term	0.096d(0.011)	58(2.3)
	Post-Term	0.47b(0.09)	56(2.1)
	Midseason	1.8a(0.53)	58(2.1)
	Harvest	0.34c(0.11)	58(2)
Year	2014	0.27b(0.061)	55b(1.4)
	2015	1.1a(0.28)	60a(1.6)





#Read the uppercase letters WITHIN A FERTILIZER treatment

#Read the lowercase letters WITHIN A CULTIVATION TREATMENT (le no difference between org and conv within LR bc no letters)



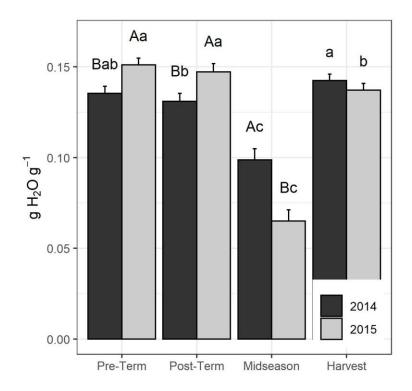
"C:\Users\seanb\Documents\words\My Career\NCSU\Studies\LabileC\Presentable\MBC Plots\2020Redo\_soil\_extrns\pub\final\msp\_co2a\_d\_yearXsampcltXnut\_all\_and\_msp\_co2a\_d\_yearXsampcltXnut\_all and msp\_co2a\_d\_yearXsampXnutXclt\_all.jpeg"

#On bars, read the uppercase letters WITHIN A FERTILIZER treatment

#On bars, read the lowercase letters WITHIN A CULTIVATION TREATMENT

#On each panel, read the uppercase letters WITHIN A YEAR

#On each panel, read the lowercase letters WITHIN A SAMPLING TIME ACROSS YEARS (ie 2014 midseason > 2015 midseason)



#ggsave(filename="C:/Users/.../NCSU/Studies/LabileC/Presentable/MBC
Plots/2020Redo\_soil\_extrns/pub/final/msp\_grvwat\_yearXsamp\_all.jpeg", width = 4, height = 4, plot=a)

#Read the lowercase letters WITHIN A YEAR (ie in both years midseason is lower than harvest)

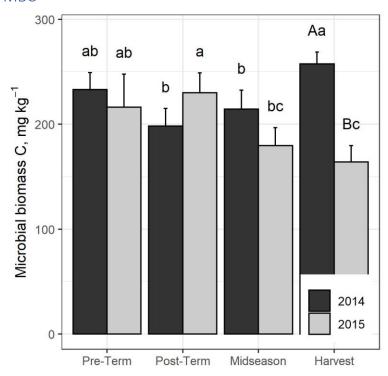
#Read the uppercase within a SAMPLING

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No interactions except year\*nut, and that is only magnitude interaction not direction interaction (i.e. main effects still are accurate that org>conv overall, 2015>2014 overall, just by different degrees).

These main effects are in the table.

# MBC

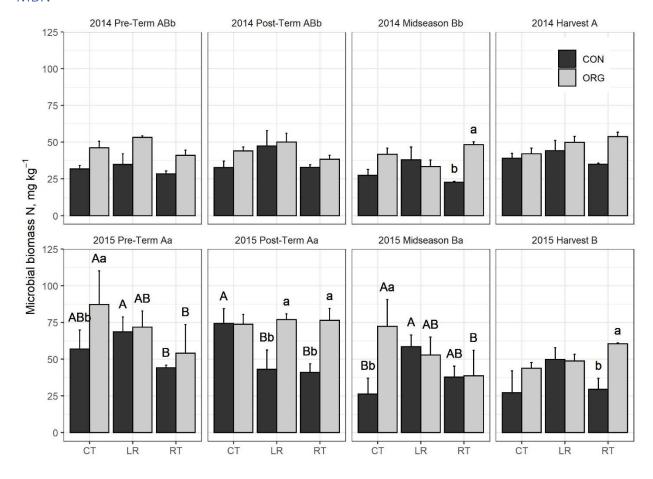


C:/Users/seanb/Documents/words/My Career/NCSU/Studies/LabileC/Presentable/MBC Plots/2020Redo\_soil\_extrns/pub/final/msp\_mbc\_mgkg\_yearXsamp\_all.jpeg

#Read the lowercase letters WITHIN A YEAR

#Read the uppercase within a SAMPLING

## **MBN**



ggs ave (filename = "C:/Users/seanb/Documents/words/My

Career/NCSU/Studies/LabileC/Presentable/MBC

Plots/2020Redo\_soil\_extrns/pub/final/msp\_mbn\_yearXsampcltXnut\_all\_and\_msp\_mbn\_yearXsampcltX nut\_all\_and\_msp\_mbn\_yearXsampXnutXclt\_all.jpeg", width = 8, height = 6, plot=a)

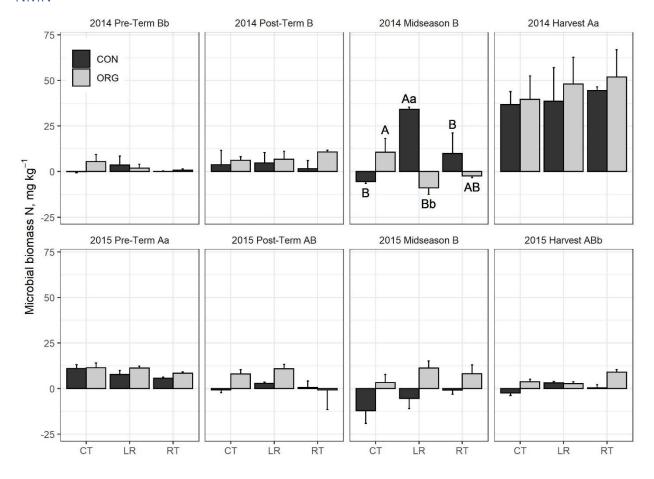
#On bars, read the uppercase letters WITHIN A FERTILIZER treatment

#On bars, read the lowercase letters WITHIN A CULTIVATION TREATMENT

#On each panel, read the uppercase letters WITHIN A YEAR

#On each panel, read the lowercase letters WITHIN A SAMPLING TIME ACROSS YEARS (ie 2014 midseason > 2015 midseason)

## NMN



#ggsave(filename="C:/Users/seanb/Documents/words/My

Career/NCSU/Studies/LabileC/Presentable/MBC

Plots/2020Redo\_soil\_extrns/pub/final/msp\_nmn\_yearXsampcltXnut\_all\_and\_msp\_nmn\_yearXsampcltX nut\_all\_and\_msp\_nmn\_yearXsampXnutXclt\_all.jpeg", width = 8, height = 6, plot=a)

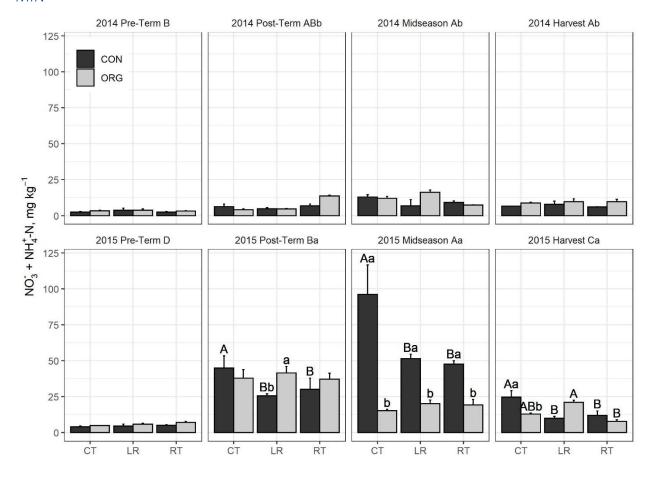
#On bars, read the uppercase letters WITHIN A FERTILIZER treatment

#On bars, read the lowercase letters WITHIN A CULTIVATION TREATMENT

#On each panel, read the uppercase letters WITHIN A YEAR

#On each panel, read the lowercase letters WITHIN A SAMPLING TIME ACROSS YEARS

## MIN



#ggsave(filename="C:/Users/seanb/Documents/words/My Career/NCSU/Studies/LabileC/Presentable/MBC

Plots/2020Redo\_soil\_extrns/pub/final/msp\_min\_yearXsampcltXnut\_all\_and\_msp\_min\_yearXsampcltXnut\_all\_and\_msp\_min\_yearXsampXnutXclt\_all.jpeg", width = 8, height = 6, plot=a)

#On bars, read the uppercase letters WITHIN A FERTILIZER treatment

#On bars, read the lowercase letters WITHIN A CULTIVATION TREATMENT

#On each panel, read the uppercase letters WITHIN A YEAR

#On each panel, read the lowercase letters WITHIN A SAMPLING TIME ACROSS YEARS