

Mustard Green Manures
On-farm Research Results
Measurement: Mustard
Glucosinolate Concentrations

Results:

Glucosinolate Concentrations of Field-Grown Mustard Shoots
 2004

<i>Brassica juncea</i>		ITC Producing Glucosinolate		<i>Sinapis alba</i>		ITC Producing Glucosinolate $\mu\text{mol/g}$	
Variety	2-propenyl	Variety	4-OH-benzyl	Variety	4-OH-benzyl	Variety	4-OH-benzyl
ISCI 99	23.7 a	N1alba	27.8 a	ISCI 99	1.4	N1alba	10.3
PI 458934	21.0 ab	Ida Gold	25.0 a	PI 458934	2.1	Ames 19268	8.6
Pacific Gold	18.2 bc	N3alba	24.1 a	ISCI 99	1.4	Martegena	8.2
ISCI 20	17.4 c	N2alba	23.4 a	Pacific Gold	1.4	N2alba	7.5
ISCI 61	16.9 c	N4alba	16.7 b	ISCI 20	1.0	N1alba	7.3
N2juncea	15.7 c	Ames 19268	16.0 b	ISCI 61	0.8	N3alba	6.6
N1juncea	15.6 c	Martegena	15.6 b	N2juncea	0.0	Ida Gold	5.6
	3-butenyl 0.05		Benzyl 0.05				
N1juncea	4.0	N4alba	10.3				
PI 458934	2.1	Ames 19268	8.6				
ISCI 99	1.4	Martegena	8.2				
Pacific Gold	1.4	N2alba	7.5				
ISCI 20	1.0	N1alba	7.3				
ISCI 61	0.8	N3alba	6.6				
N2juncea	0.0	Ida Gold	5.6				
	Total		Total				
ISCI 99	25.2 a	N1alba	35.2 a				
PI 458934	23.1 ab	N2alba	30.9 ab				
N2juncea	19.7 bc	N3alba	30.8 ab				
Pacific Gold	19.6 bc	Ida Gold	30.6 ab				
ISCI 20	18.4 c	N4alba	27.0 b				
ISCI 61	17.7 c	Ames 19268	24.6 b				
N1juncea	15.6 c	Martegena	23.8 b				
	0.05		0.05				

¹ Varieties not connected by same letter are significantly different (levels listed below columns)

² Varieties from the USDA-ARS National Plant Germplasm System, not commercially available

Varieties planted on 8/13 at 10 lb/ac (*S. alba*) and 8 lb/ac (*B. juncea*). 150 lb N/ac applied. Three replicates harvested on 10/28. All analysis done by V. Borek and M. Morra, Soil Biochemistry Laboratory, Soil Science Division, University of Idaho.