

Supplementary Materials: Concurrent Particulate Matter and Heat Exposure in Working and Non-working Women in Rural Guatemala

Jaime Butler-Dawson ^{1,2,*}, Grant Erlandson ³, Diana Jaramillo ^{1,2}, Laura Calvimontes ³, Daniel Pilloni ⁴, James Seidel ³, Colton Castro ³, Karely Villarreal Hernandez ¹, Lyndsay Krisher ^{1,2}, Stephen Brindley ^{1,2}, Miranda Dally ^{1,2}, Alex Cruz ⁴, Katherine A. James ^{1,2}, Lee S. Newman ^{1,2,5,6}, Joshua W. Schaeffer ³ and John L. Adgate ^{1,2}

Table S1. Summary statistics for ~4-hour personal particulate matter measurements (PM₅ in µg/m³) from 14 female sugarcane workers for two workdays stratified by the morning (AM) or afternoon (PM) collection times for the sampling campaigns during the first study harvest season.

~4-hour PM ₅ concentrations	February 2022 Workday		March 2022 Workday	
	AM	PM	AM	PM
N samples	7	6	4	5
Duration, min, mean (SD)	240 (0)	240 (0)	240 (0)	166 (15)
Min	163.1	319.6	342.1	64.12
P25	774.6	981.9	352.2	155.4
Median	963.8	1608	372.7	167.0
P75	1313	1958	404.9	223.1
Max	1724	2492	426.8	249.4

Wilcoxon signed rank test for AM samples vs. PM samples, p=0.74.

Table S2. Percentage of days meeting criteria for U.S. Occupational Safety and Health Administration heat index-based risk levels during the 18 sampling days across two harvest seasons.

Risk Level Experienced	Mean of Individual Average Heat Index	Mean of Individual Maximum Heat Index
Low, <91 °F (<32.7 °C)	0%	0%
Moderate, 91°F to 103 °F (32.7 °C - 39.4 °C)	72%	0%
High, 103°F to 115 °F (39.4 °C - 46.1 °C)	28%	28%
Very High to Extreme, >115 °F (>46.1 °C)	0%	72%

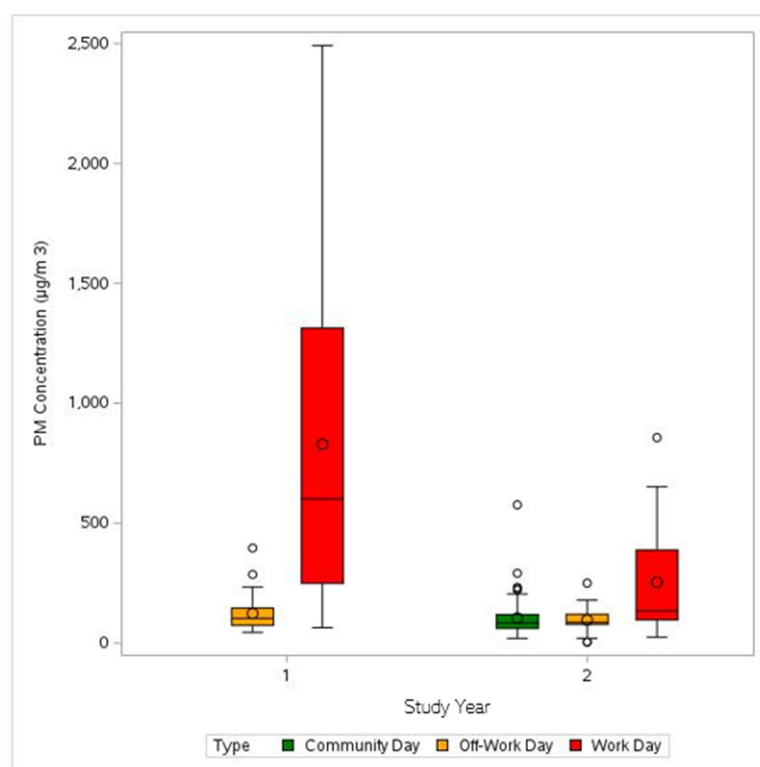


Figure S1. Box plots of personal PM_{2.5} measurements (µg/m³), on workdays, off-work days, and community days (Year 2 only) by study harvest year.

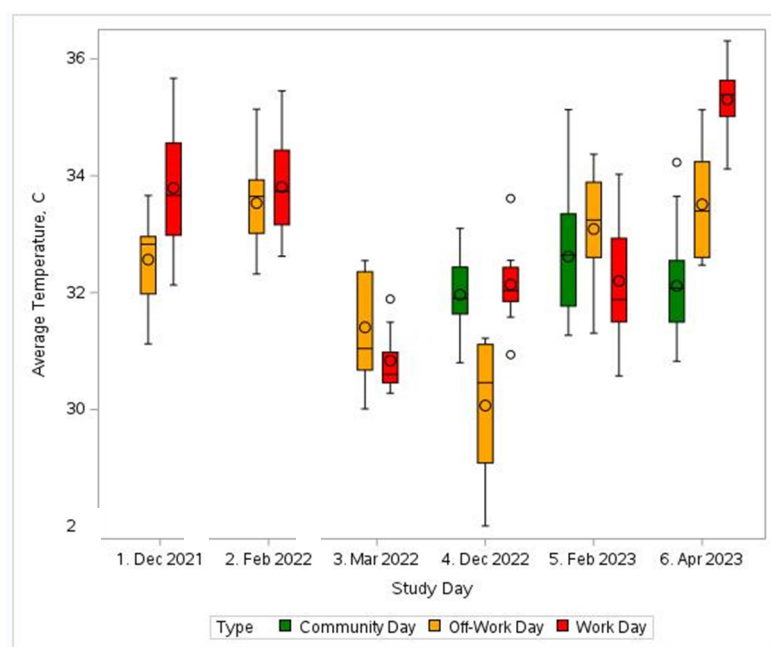


Figure S2. Box plots of average temperature by sampling month, and day type (community, off-work, work) across two study harvest seasons. Community sampling days occurred only during the 2nd harvest.

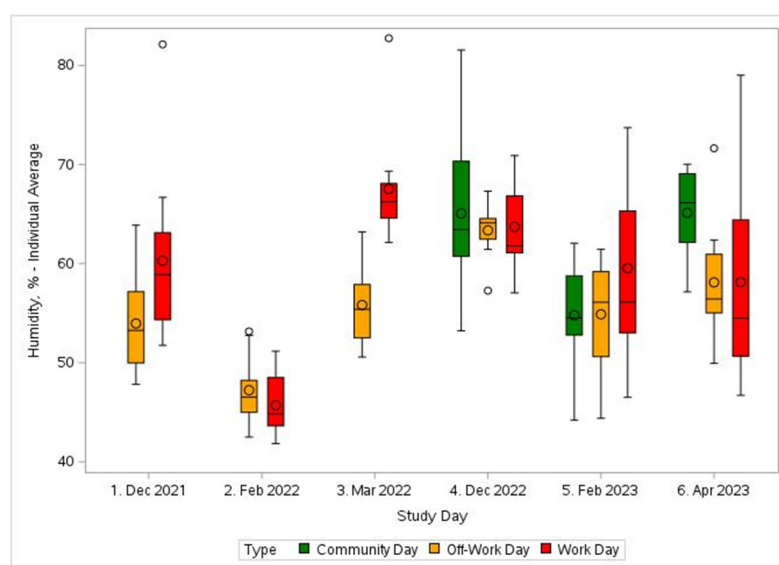


Figure S3. Box plots of average relative humidity by sampling, month and day type (community, off-work, work) across two study harvest seasons. Community sampling days occurred only during the 2nd harvest.