

Unfit for Purpose: HPHC Testing and Premium Cigars

**Presentation to the National Academies of Sciences, Engineering and Medicine
Committee on Health Effects and Patterns of Use of Premium Cigars**

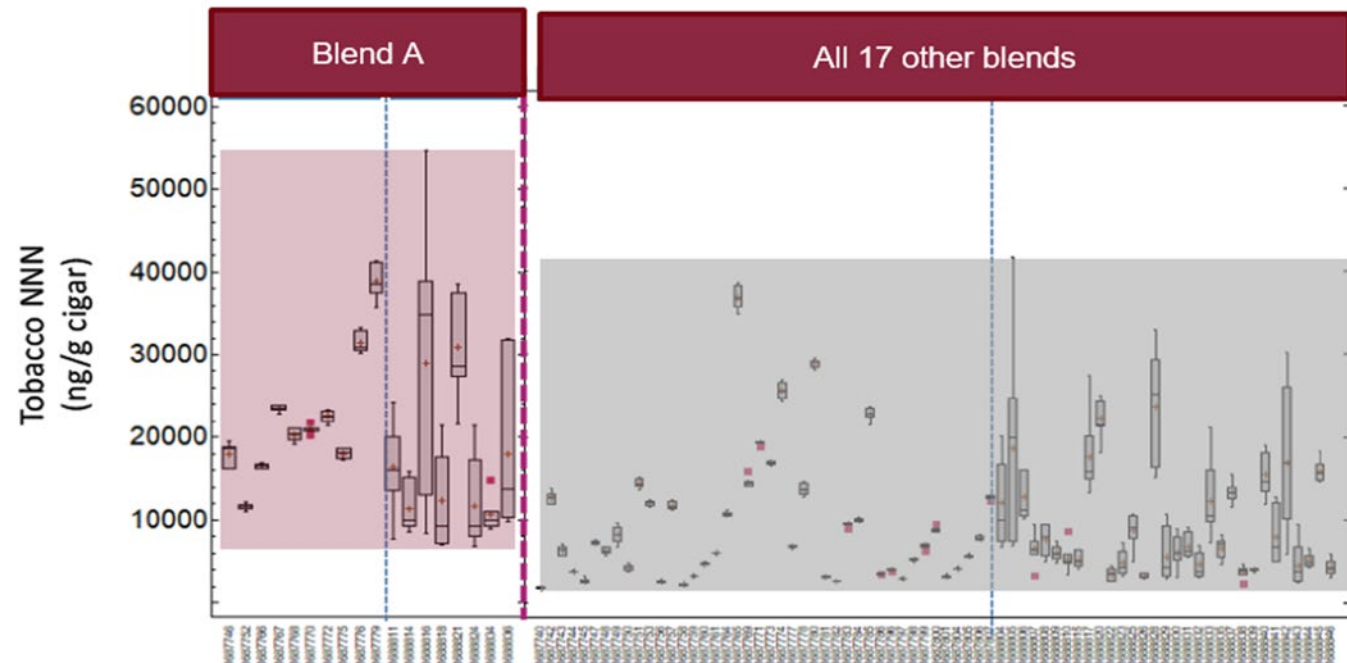
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Compliance at ITG Brands, on loan to Tabacalera USA

HPHC Testing in Premium Cigars

- 91 premium cigar products tested
 - “Premium cigar” defined as a cigar (i) wrapped in whole leaf tobacco; (ii) contains a 100 percent leaf tobacco binder; (iii) is made by manually combining the wrapper, filler and binder; (iv) has no filter, tip or nontobacco mouthpiece and is capped by hand; and (v) weighs more than six pounds per 1000
 - 43 different sizes
 - 18 different “blends” of dark, air-cured tobacco
- Testing Parameters
 - All testing was done using CORESTA methods even though not validated for large, hand-rolled cigars
 - Physical measurements: 40 Replicates
 - 6 HPHCs in cigar filler: 7 Replicates
 - 8 HPHCs in cigar smoke: 7 Replicates
 - TNCO in cigar smoke: 20 Replicates

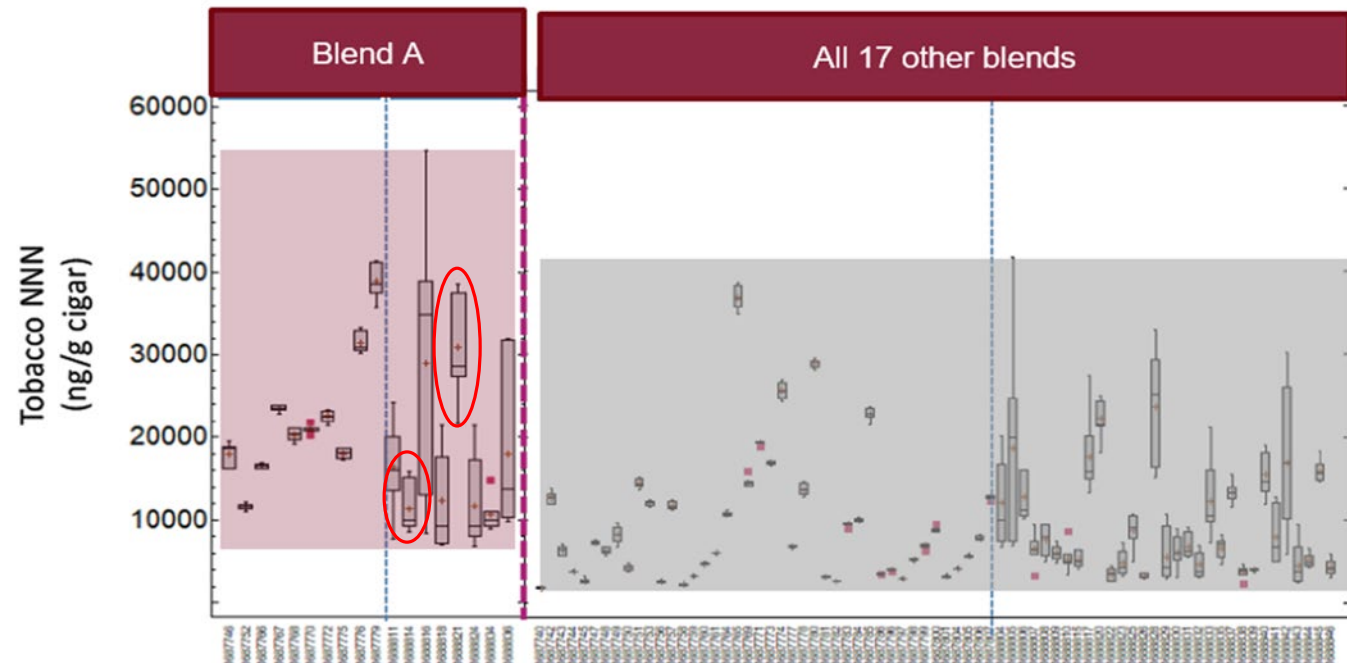
HPHC Testing in Premium Cigars

- When examining NNN results in cigar filler more variability was seen between cigar of the exact same “blend” of dark, air-cured tobacco than was seen between cigars with different “blends” of dark, air-cured tobacco



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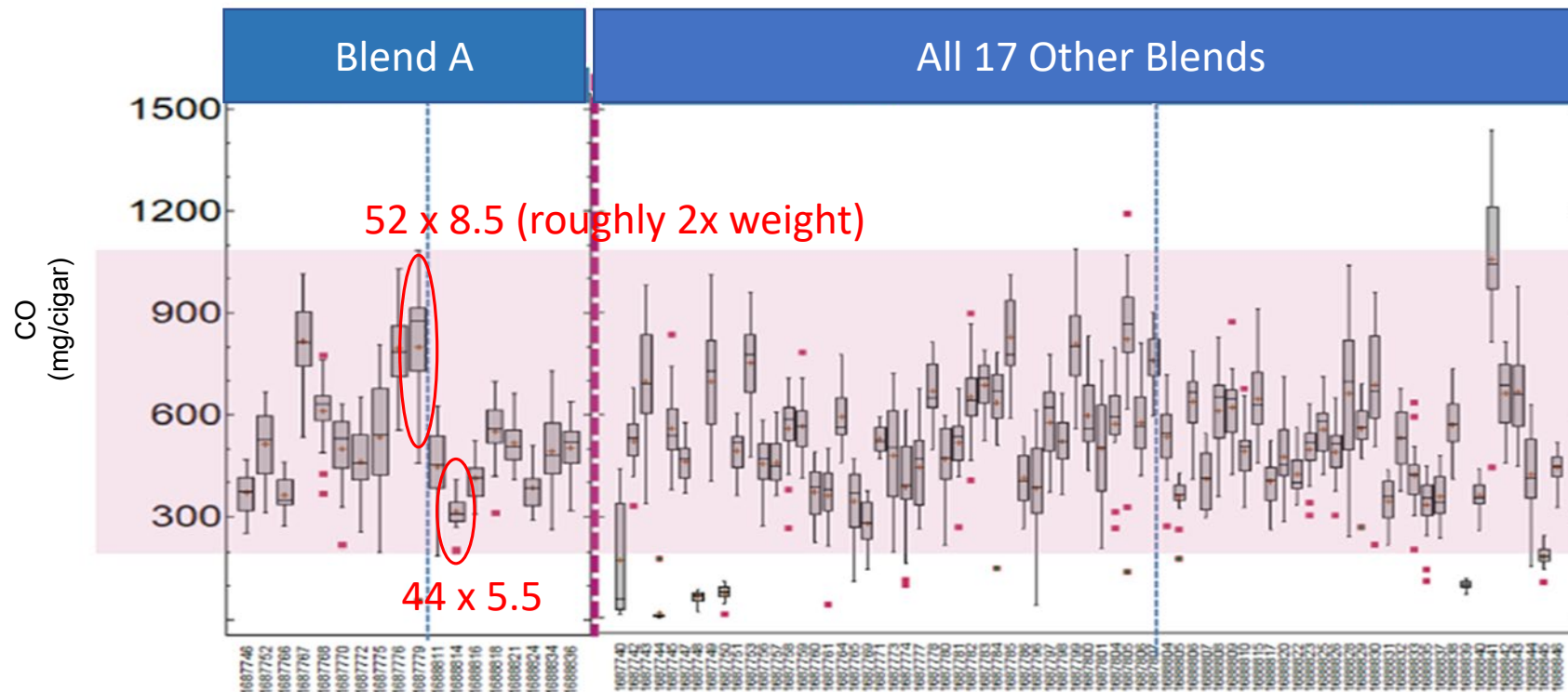
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- This box plot displays the distribution of CO (mg/cigar) for Blend A and All 17 Other Blends. The y-axis represents CO (mg/cigar) with major ticks at 300, 600, 900, 1200, and 1500. The x-axis lists individual blend identifiers. Blend A is shown on the left, and All 17 Other Blends are on the right. A vertical dashed line separates the two groups. A light pink shaded region highlights the range from approximately 300 to 1050 mg/cigar. Most blends have medians between 300 and 600 mg/cigar, with some outliers extending below 300 or above 1050 mg/cigar.

HPHC Testing in Premium Cigars

- When examining cigar smoke results there was no consistency or discrimination for smoke yield between cigars of different sizes



HPHC Testing in Premium Cigars

- HPHCs in tobacco or in smoke are not viable metrics for distinguishing or comparing premium, hand-made cigars due to several factors:
 - *Inherent variability of a hand-made product*
 - *Natural variability of the tobacco*
 - *Variability of cigar smoking results*
- Cigar smoking and tobacco filler testing methods are not standardized
- **Comparison of cigars based upon HPHC results could erroneously conclude that cigars have different characteristics when they really do not**

