

ASTA Update

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ASTA Update

- Pesticide Residues
- Cumin/Allergens
- Retail Study/Risk Assessment
- Ethylene Oxide
- CCSCH
- Needs Assessment

Pesticide Residues

- EPA sets tolerances – FDA enforces
- If no tolerance, zero - US has no default tolerance
- Recent concerns raised regarding pesticide residues – focus has been black pepper from Vietnam
- FSMA will drive additional requirements from your customers

Pesticide Residues

- Board has had ongoing discussions about how to address need for tolerances
- Looking to move forward on one chemical to understand:
 - Time (estimated 18 – 24 months)
 - Cost – including expert advisors/support
 - Data requirements

Data Requirements

- EPA will require significant data on residue amounts to make their safety determination
- Field trials vs. monitoring data
- Industry monitoring data will be key

Challenges

- Registrants unlikely to support efforts because spices are minor use
- How long is the list of chemicals needing tolerances?
- As we get tolerances for chemicals currently in use...are new ones being introduced?
- Some chemicals are not permitted for use on food in the US
 - Work underway (with ESA) to address some concerns in source country

Cumin/Allergens - FARRP

- ASTA continues to work with Food Allergy Research & Resource Program
- Exploring 2 separate areas related to low levels of peanut found in cumin (& garlic)
 - Agricultural commingling
 - Methods

Agricultural Commingling

- Work with FARRP to demonstrate to FDA that low levels are the result of incidental contamination/agricultural commingling – exempt from labeling requirement
- ASTA members have provided photos to show proximity of cumin/peanut in source country
- Reused bags being tested to see if source of low levels

Testing Methods

- ASTA members participated in work with FARRP to look at reliability of ELISA methods and PCR testing
- Preliminary results available
 - ASTA Food Safety Committee Vice Chair Lynda Lathrop of Griffith Laboratories

Why perform this study ?

- Analytical methods have been observed to return inconsistent results for the detection of peanut in cumin
- In many cases different samples of the same material have returned different results with different methods
- Possible that samples were non-homogenous OR that methods are performing differently.
- Many detection methods do not examine performance in spice matrices.

Aim of the study

- Examine if methodological variation can account for the diversity of analytical results
- *Not a laboratory assessment exercise*
- Publish results – laboratories blinded but methods unblinded (PCR methods often lab specific so will not be identified).

Study design

- Generate a series of peanut in cumin spikes containing known amounts of peanut (gravimetric).
- Design spiking procedure to maximize homogeneity of samples.
- Test using a variety of quantitative and qualitative methods (commercial) - multiple laboratories involved. Methods represent those frequently used by industry.

Study design – Generation of spiked samples

- Cumin free of peanut (likely free source, returns negative by ELISA, 20 samples)
- Roasted peanut (12% fat, lightly roasted from Golden Peanut Company)
- Spike peanut flour into cumin at 200,000 ppm whole peanut.
- Serial dilution down to 2 ppm whole peanut with extensive mixing to ensure homogeneity at each level.

Additional spiked samples

- Raw (defatted) peanut in cumin (generated in-house)
- Roasted peanut (12% fat, light roasted) in garlic

Preliminary results – quantitative methods (Roasted peanut, cumin)

Qualitative detection method	Concentration of whole peanut in cumin (mg.kg ⁻¹)	
	Lowest detected level	Highest non-detected level
<i>Immunological methods</i>		
LFD 1	2	0
LFD 2	10	4
LFD 3	200	20
LFD 4	4	2
<i>PCR methods</i>		
PCR 1	20000	2000
PCR 2	100	20
PCR 3	0*	0*

*returned positive result in the blank sample

Initial conclusions

- More variation in qualitative methods than in quantitative (ELISA) methods.
- Cumin is not a simple matrix – high protein content, high polyphenol content.
- PCR particularly variable. May be due to difficulty of some PCR methods in detecting roasted (processed) peanut.
- **Recommend that labs use an in-house spike to ensure their testing methodology works for their matrix – cumin.**

Acknowledgements

- FARRP
 - Phil Johnson (coordination)
 - Ferlie Gaskin (special projects) (ELISA and LFD)
 - Steve Taylor, Melanie Downs and Joe Baumert (advisory)
- External laboratories
 - PCR, LFD and ELISA

Retail Study/Risk Profile



Ethylene Oxide

- Next re-registration eligibility decision (RED): Sept. 2021
- Based on feedback, EtO will still be an important tool
- Work already underway with EPA
- Study to meet EPA request for ECH exposure data estimated to cost \$500,000 - \$1 million
- ASTA submitted waiver request for study on ECH exposure – decision?

Ethylene Oxide

- Budgeting approximately \$1 million for next 6 – 7 years
- Paid through member assessment based on volume of EtO treated spice
- All members asked to submit forms – received from 56 (140), 20 reported usage
- Last attempt to contact those who have not provided input then will develop assessment to be paid over 6 years

Codex Committee

- Established July 2013 to develop quality standards for spices
- Hosted by India – ASTA participates through IOSTA/feedback to US delegation
- 1st meeting February 2014 – identified first 4 spices: cumin, pepper, oregano, thyme
- 2nd meeting September 2015 – first drafts reviewed – none ready to forward for final approval

Codex Committee

- Key issue is scope: “applies to ...offered for industrial food production, as a condiment and for direct human consumption or repackaging if required. It does not apply to the product when indicated as being intended for further processing.”
- Standard would apply at import and as written, essentially only apply to RTE
- US estimates that covers <5% of imports

Codex Committee

- ASTA did not support formation of committee
- FDA will not enforce quality standards
- Narrow scope means a lot of time, money being spent to develop standards that basically won't apply to anything
- US developing definition of "further processing"
- Change scope or eliminate committee

Industry Needs Assessment

- Conducted 2005, 2010 and planned for 2016
- Goal – to ascertain how well ASTA is meeting needs of industry and members & ID future needs
- Will be used as basis of 2017 strategic planning by Board of Directors
- Timing TBD, but want all members to be aware of planned survey
- Your feedback is essential



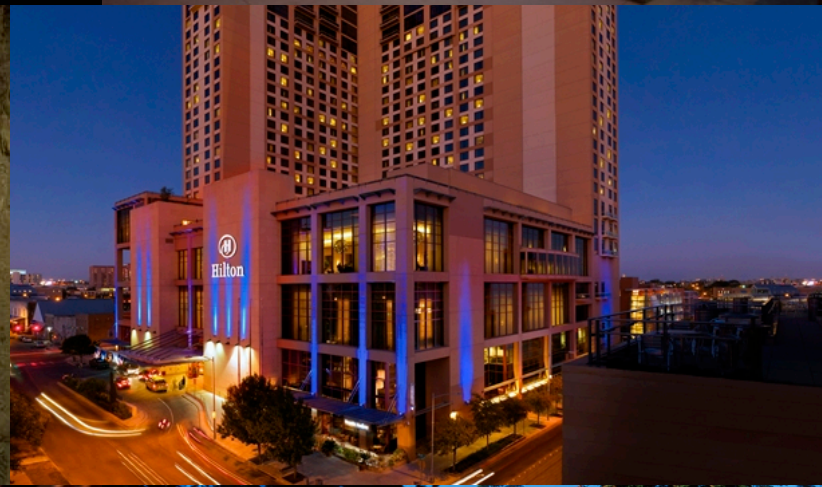
ASTA Annual Meeting

April 10 – 13, 2016

JW Marriott Camelback Inn
Resort & Spa



April 23 – 26, 2017



2015 ASTA Regulatory Workshop

THANK YOU!

