



METHODS FOR CONTROLLABLE PARTICLE SIZE REDUCTION IN FOOD AND CANNABIS SAMPLE PREPARATION *STARRING: THE PULVERISETTE 11*

**MELISSA FAUTH
PRESIDENT & CEO**

- Good Laboratory Practices
- Applications
- Techniques
- Questions

GOOD LABORATORY PRACTICES



- **Reproducible** – consistent performance independent of end user / technician
- **Representative** – imparts greatest opportunity for homogeneous, unbiased sample
- **Integrity** – method itself does not impact parameters being measured



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PROCEDURES AND VALIDATIONS

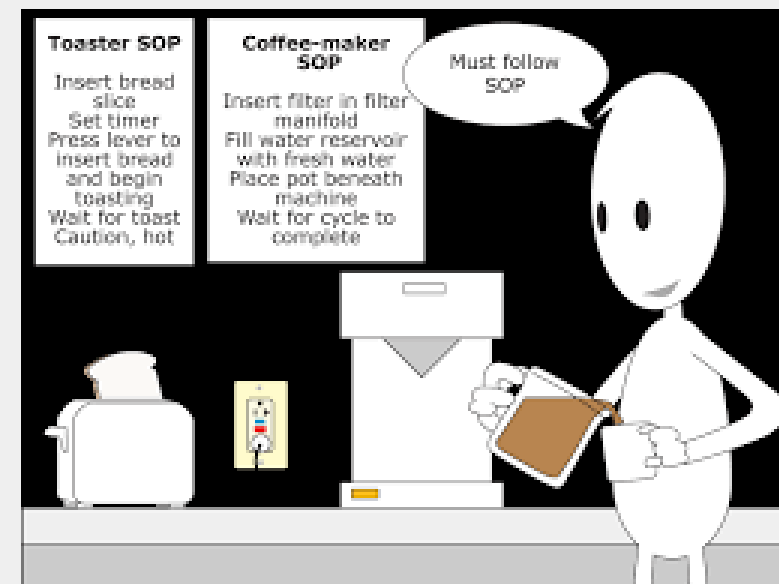


SOP

- Written procedure with chronological steps
- Defined how to carry out protocols & specific activity
- Explain how procedure should work
- Consistent and repeatable, independent of individual judgement or technique

Instrument Validation

- Necessary for analytical lab procedures
- Data produced by “*faulty*” instruments or faulty preparation practices may give appearance of valid or fake data/results
- Instrument capabilities require, and are dependent on, proper sample preparation to yield highest level of accuracy and sensitivity outlined in specifications.





GOOD LABORATORY PRACTICES



Sample Prep Technique

Risks

- False positive/negative results, incorrectly failed batches
- Lost revenue, time, decreased efficiency
- Varied sensitivity or decreased detection levels
- Inaccurate potency-high/low

Benefits

- Higher assurance of quality and consistency
- Reduction of waste
- Brand reputation, company safety

SAMPLE APPLICATIONS



Significant Flexibility:

Material Properties

- Dry, Wet, Frozen
- Volume range <40ml up to 1400ml
- Biomass, food, agglomerated powders or crystals
 - Plants, seeds, flowers, stalks, roots, fungi
 - Meats, fish, fruits, vegetables, beans, nuts
 - Baked goods, gummies, candy, chocolates...and more



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THE RIGHT MILL FOR YOUR MATERIAL



Significant Flexibility:

Mill Configurations

- **Small Volume-** 40ml and 100ml
 - Disposable and reusable vessels
 - **Sterile** option
 - Polymer and stainless steel
 - Blade configuration options
 - Dry ice compatible for **CRYO**



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SUGGESTED METHODS



Significant Flexibility- Mill Configurations

- **Mid-Large Volume**
 - Up to 1400ml
 - Adjustable with VarioLid
 - **Cryo** with LN2 and dry ice
 - Range of knife geometries
 - Polymer and stainless steel options
- **EASY TO CLEAN**
 - Fully disassemble grinding parts
 - Dishwasher and **autoclave safe**



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**PARTICLE SIZE REDUCTION
FOR ANALYTICAL SAMPLE PREPARATION
*STARRING: THE PULVERISETTE 11***

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Q & A