Don’t Hesitate. Fumigate!

Why fumigation is valuable
ECOLAB PEST ELIMINATION, FUMIGATION & SPECIALTY PEST SERVICES

PRESENTED BY:

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Ecolab Pest Elimination
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AGENDA

▪ What’s changed
▪ Reasons for hesitation
▪ Fumigation: A Useful Tool
▪ Take Away’s
▪ Questions
WHAT’S CHANGED
MB TO SF 2005

Fumigate Changeover

- The Montreal Protocol, finalized in 1987, this was a global agreement to protect the ozone layer by phasing MB.

- This phase out provided a pathway for SF/Profume introduction to the Milling Industry 2005

- Profume has become the dominate fumigant of choice
FSMA 2013/2014: ENFORCED 2016

- FSMA / Food Safety Modernization Act, which the United States Congress passed in 2013.
- FSMA has increased oversight and accountability for all food producing facilities.
- With FSMA in place, FDA has moved toward a prevention-oriented system including pest management systems.
2020 saw 425.338 million cwts, up 0.7%, from 2019.

Third largest yearly total on record.

Difficult to justify downtime for sanitation and maintenance.
Highly data-driven workforce.

Fumigation in some cases is a last resort and could be viewed as failure by some.

Fumigation is not taught as part of an overall mill or product protection strategy.
Reasons for Hesitation

Downtime
Prep Time

Cost $$$

Results

Safety
FUMIGATION IS A USEFUL TOOL

Proven Results

Realtime Monitoring
Ability to adjust at a moments notice.
Reaches insect harborage areas with ease
Efficacy on all life stages
Delivery of detailed post fumigation report
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Proven Results

Realtime Monitoring
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Reaches hard to clean insect harborage areas with ease
Efficacy on all life stages
Delivery of detailed post fumigation report

Safe
Minimum calculated dosages
Nonflammable fumigant
No effects on equipment or digital components
Labeled for and safe on food
**General Information (Optional)**

- **Site Name**: Flour Mill
- **Job Name**: IAOM
- **Fumigation Date**: 7/22/2021
- **Licensed Fumigator**: Alexander Luce

**Target Information**

- **Target Pests**:
  - Confused Flour Beetle (Tribolium confusum)
  - Red Flour Beetle (Tribolium castaneum)
  - Sawtoothed Grain Beetle (Oryzaephilus surinamensis)
  - Warehouse Beetle (Trogoderma variabile)
  - Indian Meal Moth (Plodia interpunctella)

- **Dosage**:
  - High

- **Pressure Type**:
  - Normal Atmospheric Pressure

- **Fumigation Type**:
  - Space

- **Commodity**:

**Schedule Treatment**:

- I Affirm this is a Schedule Treatment

**Structure/Area Information**

<table>
<thead>
<tr>
<th>Area Name*</th>
<th>Temperature*</th>
<th>Estimated Half Loss*</th>
<th>Exposure Time*</th>
<th>Area Volume*</th>
<th>User Defined CT</th>
<th>Target CT</th>
<th>Fumigant Required</th>
<th>Initial Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>88 °F</td>
<td>14 h</td>
<td>24 h</td>
<td>750,000 ft³</td>
<td>0 oz/h/1000 ft²</td>
<td>593 oz/h/1000 ft²</td>
<td>1,975.48 lb</td>
<td>42 oz/1000 ft²</td>
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<td>&gt;</td>
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</table>

**Results**

- **Total Amount of Fumigant**: 1,975.48 lb
- **Total Structure Volume**: 750,000 ft³
- **Average Concentration**: 42 oz/1000 ft³
- **Average HLT**: 14 h
- **Average CT**: 593 oz/h/1000 ft²
FUMIGATION IS A USEFUL TOOL

Proven Results
- Realtime Monitoring
- Ability to adjust at a moments notice.
- Reaches hard to clean insect harborage areas with ease
- Efficacy on all life stages
- Delivery of detailed post fumigation report

Safe
- Minimum calculated dosages
- Nonflammable fumigant
- No effects on equipment or digital components
- No Residue

Real Value
- Zero pest reset
- FISMA / Audit compliance
- Flexible schedule
- Limited downtime (Pulse)

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TAKE AWAYS

1) We understand the challenges

2) Useful tool

3) Real value

4) Don’t Hesitate!
QUESTIONS?

THANK YOU

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