



- **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.



INCREASED PRODUCTION DEMANDS

- 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.



DEMOGRAPHIC CHANGE IN WORKFORCE

- 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





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



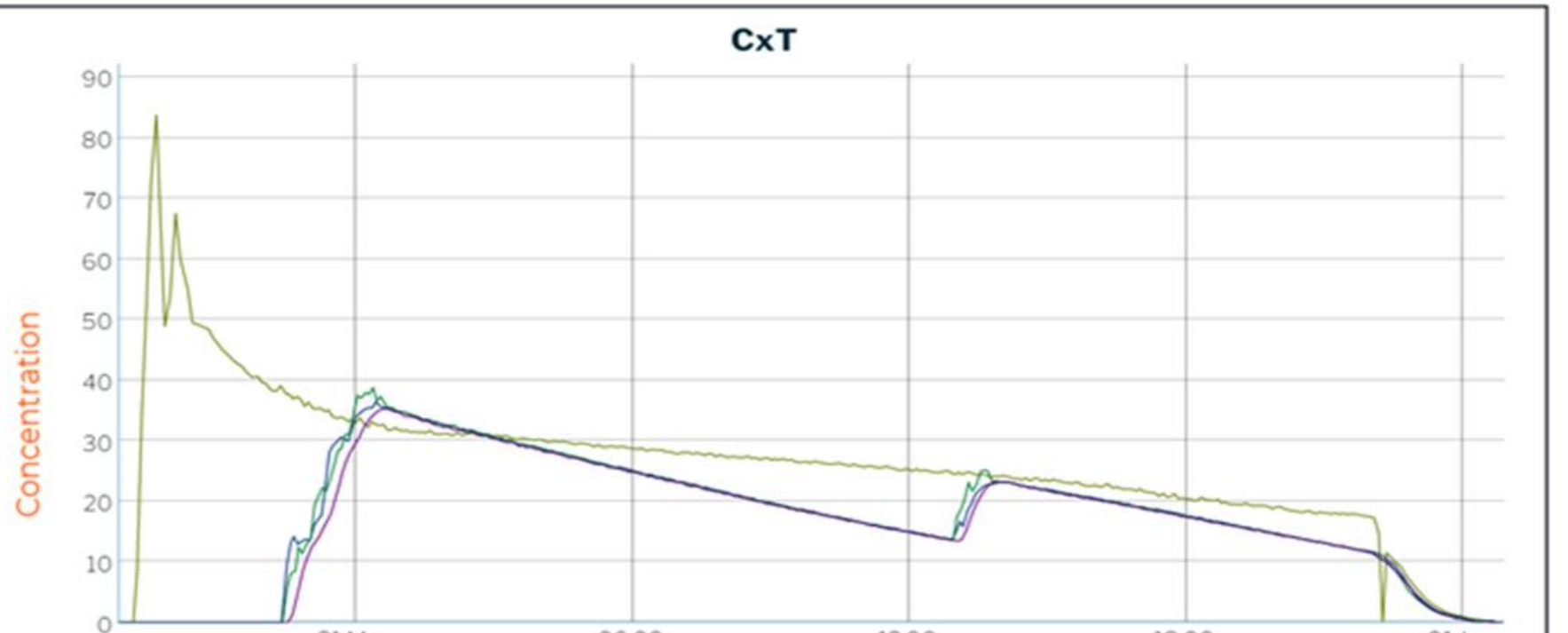
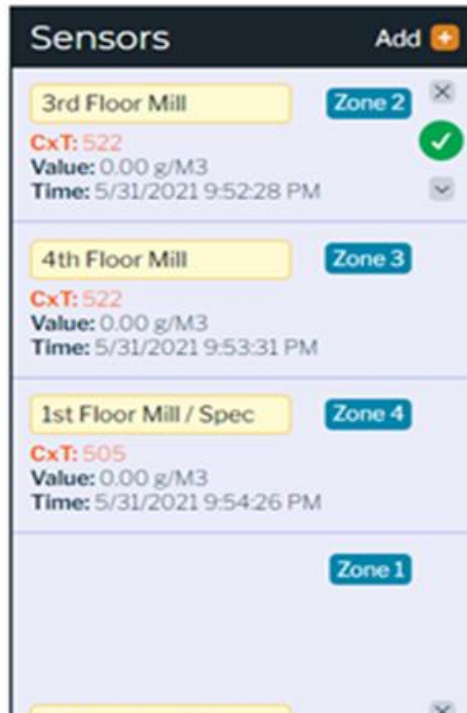


WiFi, 3G Cellular &
Satellite, Ethernet,
PLC Integration

Spectros Web Portal



Internet Connected
Devices



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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 ☐ Low

Pressure Type
☒ Normal Atmospheric Pressure ☐ Vacuum

Fumigation Type
☒ Space ☐ Commodity

Schedule Treatment
☐ I Affirm this is a Schedule Treatment

Structure/Area Information

		Area Name*	Temperature*	Estimated Half Loss*	Exposure Time*	Area Volume*	User Defined CT	Target CT	Fumigant Required	Initial Concentration
	+		88 °F	14 h	24 h	750,000 ft³	0 oz·h/1000ft³	593 oz·h/1000ft³	1,975.48 lb	42 oz/1000ft³
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Calculate

Print Dosage Information

Results

Total Amount of Fumigant 1,975.48 lb 15.80 Cylinders	Total Structure Volume 750,000 ft³	Average Concentration 42 oz/1000ft³	Average HLT 14 h	Average CT 593 oz·h/1000ft³
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Next Step >>

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No Residue

Real Value

Zero pest reset

FISMA / Audit compliance

Flexible schedule

Limited downtime (Pulse)



TAKE AWAYS

- 1) We understand the challenges
- 2) Useful tool
- 3) Real value
- 4) Don't Hesitate!



QUESTIONS?

THANK YOU

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