Mycotoxin and Fungal Contamination Control Training Course

Professional Development Training Course Outline

Category	Food processing and Technology	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The global food and feed industry faces increasing challenges from mycotoxin contamination and fungal growth, which threaten food safety, livestock productivity, and public health. With climate change, globalized trade, and modern supply chain complexities, the risk of fungal contamination has expanded beyond traditional boundaries. Organizations must adopt robust contamination prevention strategies, advanced monitoring techniques, and international compliance standards to remain competitive and ensure consumer protection. This training provides actionable skills and knowledge for professionals aiming to reduce contamination risks, protect product integrity, and uphold global safety benchmarks.

Mycotoxin and Fungal Contamination Control Training Course integrates scientific principles, regulatory guidelines, and practical applications in mycotoxin control, equipping participants with industry-recognized methods to identify, monitor, and mitigate contamination across the supply chain. Through expert-led sessions, interactive case studies, and practical tools, this program emphasizes risk assessment, laboratory analysis, hygienic practices, and compliance with global food safety standards such as HACCP, ISO, and Codex Alimentarius. Participants will leave with actionable strategies to implement effective contamination control measures, minimize economic losses, and strengthen food security.

Programme Curriculum

Mycotoxin and Fungal Contamination Control Training Course

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Course Objectives

1. Understand the fundamentals of mycotoxin formation and fungal contamination.
2. Explore trending global food safety regulations and compliance strategies.
3. Apply advanced detection and rapid diagnostic techniques for mycotoxins.
4. Implement HACCP-based approaches for contamination control.
5. Examine climate change impacts on fungal growth and mycotoxin prevalence.
6. Develop supply chain monitoring systems for contamination prevention.
7. Integrate digital technologies for contamination detection and risk prediction.
8. Identify critical control points in food and feed production systems.
9. Apply Good Manufacturing Practices (GMP) and hygienic design principles.
10. Evaluate risk management and mitigation strategies for fungal contamination.
11. Analyze real-world contamination incidents and lessons learned.
12. Strengthen organizational capacity for quality assurance and safety.
13. Develop sustainable solutions for long-term contamination control.

Organizational Benefits

1. Strengthened food and feed safety assurance.
2. Reduced risk of costly product recalls.
3. Enhanced compliance with global regulations.
4. Increased customer trust and market competitiveness.
5. Improved operational efficiency and hygiene standards.
6. Minimized financial losses from contamination incidents.
7. Better employee capacity in contamination prevention.
8. Advanced monitoring and reporting systems.
9. Integration of technology-driven control strategies.
10. Sustainable long-term contamination control framework.

Target Audiences

1. Food safety managers
2. Quality assurance professionals
3. Feed industry specialists
4. Regulatory compliance officers
5. Laboratory technicians
6. Production and operations managers

7. Agricultural extension officers
8. Supply chain and logistics coordinators

Course Duration: 10 days

Course Modules

Module 1: Fundamentals of Mycotoxins and Fungal Contamination

- Definition, occurrence, and importance
- Types of mycotoxins and their impact
- Environmental factors influencing fungal growth
- Global contamination trends
- Case study: Aflatoxin outbreak in maize supply chains
- Preventive strategies overview

Module 2: Mycotoxin Detection and Analytical Methods

- Principles of chromatographic analysis
- Rapid diagnostic kits and biosensors
- Sample collection and handling
- Laboratory quality assurance protocols
- Case study: Application of LC-MS in feed analysis
- Emerging detection technologies

Module 3: Regulatory Frameworks and Compliance

- Codex Alimentarius standards
- European Union and FDA regulations
- Import/export compliance requirements
- Risk-based food safety legislation
- Case study: EU compliance in cereal exports
- Compliance monitoring systems

Module 4: HACCP-Based Contamination Control

- Critical control points for fungal prevention
- Hazard analysis techniques
- Integration of HACCP with GMP
- Preventive vs corrective actions
- Case study: HACCP application in a dairy facility
- Verification and validation processes

Module 5: Climate Change and Mycotoxin Risks

- Climate impact on fungal ecology
- Shifts in contamination prevalence
- Predictive modeling approaches
- Adaptive risk management strategies
- Case study: Fusarium toxins in changing climates
- Long-term mitigation policies

Module 6: Good Manufacturing Practices (GMP)

- Hygienic facility design
- Equipment cleaning and sanitation
- Cross-contamination prevention
- Storage and handling guidelines
- Case study: GMP in flour milling industry
- Audit and inspection requirements

Module 7: Digital and Technological Solutions

- IoT and sensor-based monitoring
- AI-driven prediction systems
- Blockchain for traceability
- Big data applications in food safety
- Case study: Blockchain in supply chain integrity
- Future technology trends

Module 8: Supply Chain Monitoring

- Vulnerable points in supply networks
- Transport and storage contamination risks
- Supplier quality verification
- Documentation and traceability systems
- Case study: Contamination in global nut trade
- Monitoring software applications

Module 9: Food and Feed Processing Controls

- Heat treatments and detoxification methods
- Chemical binders and additives
- Fermentation processes
- Drying and storage innovations
- Case study: Detoxification in animal feed
- Efficiency and safety evaluation

Module 10: Risk Assessment and Mitigation

- Risk identification methods
- Quantitative vs qualitative assessments
- Control measure prioritization
- Scenario-based planning
- Case study: Risk analysis in poultry sector
- Decision-making frameworks

Module 11: Storage and Transportation Practices

- Controlled atmosphere storage
- Temperature and humidity monitoring
- Packaging innovations
- Best practices in transport hygiene
- Case study: Contamination in grain storage silos

- Preventive logistics measures

Module 12: Laboratory Quality Control

- Calibration and standardization
- Proficiency testing
- Accreditation standards (ISO 17025)
- Internal audits and checks
- Case study: QA/QC in cereal testing labs
- Continuous improvement strategies

Module 13: Incident Management and Emergency Response

- Crisis communication strategies
- Rapid recall procedures
- Coordination with regulatory bodies
- Root cause analysis
- Case study: Contamination incident in infant formula
- Recovery and corrective measures

Module 14: Sustainability and Long-Term Strategies

- Eco-friendly control approaches
- Sustainable agricultural practices
- Farmer training and awareness programs
- Reduction of food losses
- Case study: Sustainable maize farming practices
- Policy recommendations

Module 15: Global Case Studies and Lessons Learned

- Comparative analysis of incidents worldwide
- Regional variations in control measures
- Success stories in contamination prevention
- Failures and consequences in control strategies
- Case study: Mycotoxin crisis in East Africa
- Key takeaways and recommendations

Training Methodology

- Interactive lectures by industry experts
- Practical laboratory demonstrations
- Group discussions and problem-solving exercises
- Case study analysis sessions
- Simulation of contamination management scenarios
- Continuous knowledge assessment and feedback

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now