Training Course on Poultry Vaccination Programs and Disease Surveillance

Professional Development Training Course Outline

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

Course Introduction

The poultry industry plays a pivotal role in global food security, rural livelihoods, and agricultural economic growth. However, disease outbreaks continue to pose a significant threat to productivity and sustainability. A well-structured poultry vaccination program and an effective disease surveillance system are essential to safeguard flock health, minimize mortality, and ensure biosecurity. Training Course on Poultry Vaccination Programs and Disease Surveillance is designed to equip veterinarians, poultry farmers, animal health professionals, and agricultural stakeholders with the practical skills and technical knowledge required to implement efficient poultry vaccination strategies and real-time disease monitoring frameworks.

This comprehensive capacity-building program integrates science-based vaccination protocols, cutting-edge disease detection technologies, and real-world case studies to enhance participants' expertise in poultry health management. With an emphasis on early warning systems, vaccine cold chain integrity, and outbreak response, this training will enable proactive disease control and sustainable poultry production. Participants will gain a deeper understanding of immunization schedules, regional disease mapping, and antimicrobial resistance mitigation—all aligned with One Health principles.

Programme Curriculum

Training Course on Poultry Vaccination Programs and Disease Surveillance

Introduction

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Objectives

1. Understand poultry immunology and vaccine response mechanisms
2. Identify common poultry diseases requiring vaccination
3. Design evidence-based poultry vaccination schedules
4. Manage cold chain logistics for vaccine preservation
5. Conduct poultry disease outbreak investigations
6. Utilize mobile and digital disease surveillance tools
7. Integrate GIS for spatial disease tracking
8. Implement biosecurity protocols and vaccination hygiene
9. Monitor vaccine efficacy and seroconversion rates
10. Develop emergency vaccination response strategies
11. Promote antimicrobial stewardship in poultry vaccination
12. Conduct risk-based surveillance for priority pathogens
13. Build multi-sectoral collaboration for disease surveillance

Target Audience

1. Poultry farm owners and managers
2. Veterinary officers and animal health technicians
3. Agribusiness consultants
4. Livestock extension agents
5. Veterinary pharmaceutical distributors
6. Poultry vaccinators and para-vets
7. Livestock policy makers and regulators
8. Animal health researchers and epidemiologists

Course Duration: 10 days

Course Modules

Module 1: Introduction to Poultry Disease Epidemiology

- Overview of avian diseases
- Poultry disease transmission patterns
- Host-pathogen interactions
- Key terminology in epidemiology
- Current trends in poultry health
- **Case Study: Newcastle Disease Outbreak in East Africa**

Module 2: Poultry Immune System and Vaccine Response

- Basics of avian immunology
- Types of immune responses
- Live vs inactivated vaccines

- Immunosuppression in flocks
- Impact of stress on immunity
- **Case Study: Marek’s Disease Vaccine Failure**

Module 3: Disease Surveillance Frameworks

- Passive and active surveillance
- Syndromic surveillance systems
- Data recording templates
- Early warning indicators
- Community-based reporting
- **Case Study: Avian Influenza Early Detection**

Module 4: Cold Chain and Vaccine Handling

- Cold chain infrastructure
- Storage temperature ranges
- Transportation protocols
- Expiry and batch tracking
- Handling vaccine wastage
- **Case Study: Vaccine Potency Loss in Remote Areas**

Module 5: Designing a Vaccination Schedule

- Broiler vs layer vaccination
- Age-based protocols
- Multi-vaccine administration
- Seasonal adjustment factors
- Integrating booster shots
- **Case Study: Hatchery Vaccination Success**

Module 6: Poultry Vaccine Types and Their Uses

- Live attenuated vaccines
- Inactivated/killed vaccines
- Recombinant vaccines
- Autogenous vaccines
- Vaccine adjuvants
- **Case Study: IBV Strain Mismatch Challenges**

Module 7: Diagnostic Tools in Disease Surveillance

- Serology and ELISA
- PCR and rapid diagnostics
- Fecal and tissue sampling
- Laboratory sample submission
- On-farm testing tools
- **Case Study: Diagnostic Lab Capacity in Rural Areas**

Module 8: Biosecurity and Hygiene in Vaccination Programs

- Disinfection protocols
- Personal protective equipment (PPE)
- Vector and rodent control
- Separation of flocks by age
- Entry/exit sanitation procedures

- **Case Study: Biosecurity Lapse and Disease Spread**

Module 9: Emergency Response and Vaccination in Outbreaks

- Rapid response teams
- Zoning and movement control
- Emergency vaccination planning
- Stakeholder coordination
- Vaccination in high-risk zones
- **Case Study: Rift Valley Fever Emergency Campaign**

Module 10: Monitoring and Evaluation of Vaccine Efficacy

- Post-vaccination monitoring
- Vaccine take rate analysis
- Clinical response assessment
- Mortality tracking
- Data-driven improvements
- **Case Study: Improved Outcomes in Layer Farms**

Module 11: GIS and Mapping for Disease Tracking

- Introduction to GIS tools
- Disease mapping techniques
- Real-time case tracking
- Heatmaps and clustering
- Mobile data collection apps
- **Case Study: Mapping Coccidiosis Prevalence**

Module 12: Digital Technologies for Surveillance

- Mobile apps for reporting
- E-records and dashboards
- Use of AI in prediction
- IoT devices in poultry sheds
- Telemedicine in flock health
- **Case Study: Digital App for Smallholder Farmers**

Module 13: Antimicrobial Resistance and Vaccine Integration

- AMR overview in poultry
- Linking AMR to poor vaccination
- Alternative disease prevention
- Reducing antibiotic misuse
- Public health implications
- **Case Study: AMR Surveillance in Kenya**

Module 14: Risk-Based Surveillance Approaches

- Prioritization of diseases
- Targeted sampling methods
- Risk mapping tools
- Sentinel sites
- Data integration for action
- **Case Study: Prioritizing Infectious Coryza in Urban Areas**

Module 15: Policy and Stakeholder Engagement

- National animal health policies
- Stakeholder roles in surveillance
- Public-private partnerships
- Reporting obligations
- Advocacy for vaccination uptake
- **Case Study: Policy Shift in National Vaccination Programs**

Training Methodology

- Interactive PowerPoint presentations and infographics
- Group discussions and brainstorming sessions
- Hands-on practice with vaccination and diagnostic tools
- Field visits to poultry farms and labs
- Real-life case study analysis and simulation exercises
- End-of-module quizzes and peer review activities

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

Start Date	End Date	Location	Price
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

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