Training Course on Certified Seed Production Technology and Quality Assurance

Professional Development Training Course Outline

Category	Agriculture	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Certified seed production technology and quality assurance are fundamental to enhancing agricultural productivity, ensuring food security, and improving seed value chain resilience. Training Course on Certified Seed Production Technology and Quality Assurance equips stakeholders with practical skills and knowledge to manage seed production systems, from foundation seed to certified seed. With increasing global demand for high-quality seeds, understanding the science and compliance standards behind certified seed production is more vital than ever. This course integrates cutting-edge innovations in seed science, biotechnology, traceability, and regulatory frameworks to meet modern agricultural needs.

Participants will gain hands-on insights into seed varietal maintenance, field inspection, post-harvest handling, and quality assurance practices that meet international and national certification standards. Designed for seed producers, agribusiness professionals, agricultural extension officers, and policymakers, the course focuses on real-world applications through case studies, field-based learning, and quality control labs. By enhancing participants' technical capacity, the course supports sustainable seed systems, agribusiness growth, and improved farmer livelihoods.

Programme Curriculum

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Course Objectives

1. Understand certified seed production systems and seed classes.
2. Apply modern biotechnology in varietal development and maintenance.
3. Analyze climate-smart seed production techniques for resilient farming.
4. Implement quality assurance standards in seed testing and certification.
5. Conduct effective seed field inspections and maintain isolation standards.
6. Manage post-harvest seed processing and packaging operations.
7. Utilize digital tools in seed traceability and supply chain monitoring.
8. Evaluate national and international seed regulations and compliance.
9. Enhance farmer access to quality seeds through inclusive distribution systems.
10. Promote gender-inclusive seed production enterprises.
11. Apply agroecological practices in seed multiplication.
12. Develop business models for seed entrepreneurship.
13. Design and monitor seed quality management systems.

Target Audiences

1. Seed producers and multipliers
2. Agribusiness entrepreneurs
3. Agricultural extension officers
4. Government regulators and policymakers
5. Research and academic institutions
6. NGOs and development agencies
7. Agro-input dealers
8. Farmer-based organizations and cooperatives

Course Duration: 5 days

Course Modules

Module 1: Introduction to Certified Seed Systems

- Seed classification and classes
- Importance of certified seed
- Seed value chain overview
- Role of national seed authorities
- Seed system challenges in Africa
- **Case Study**: Kenya Seed Company certification model

Module 2: Varietal Development and Maintenance

- Breeder and foundation seed production
- Genetic purity and identity preservation
- Varietal registration processes
- Biotechnology in seed development
- Climate-resilient varietal selection

- **Case Study**: CIMMYT maize varietal release process

Module 3: Seed Production Field Practices

- Land selection and crop rotation
- Isolation distance requirements
- Roguing and field inspection
- Pollination control and hybrid seed
- Farmer training for production standards
- **Case Study**: Smallholder hybrid seed production in Uganda

Module 4: Seed Harvesting and Post-Harvest Handling

- Harvest timing and methods
- Drying and cleaning processes
- Seed grading and treatment
- Packaging and labeling protocols
- Safe storage techniques
- **Case Study**: Post-harvest handling in Ethiopian seed cooperatives

Module 5: Seed Testing and Quality Assurance

- Seed sampling techniques
- Physical and physiological testing
- Germination and purity analysis
- Laboratory accreditation and standards
- ISTA and OECD seed rules
- **Case Study**: Ghana Seed Laboratory ISO certification

Module 6: Seed Certification and Regulatory Compliance

- Certification procedures and documentation
- Role of inspectors and auditors
- Penalties for non-compliance
- International seed standards alignment
- Seed import/export regulations
- **Case Study**: Regional harmonization of seed laws in East Africa

Module 7: Digital Technologies in Seed Traceability

- Blockchain in seed tracking
- GIS for field monitoring
- Mobile apps for farmer reporting
- Data management in certification
- Traceability from production to retail
- **Case Study**: AgUnity traceability app pilot in Nigeria

Module 8: Seed Enterprise Development and Distribution

- Business planning and market analysis
- Distribution networks and logistics
- Branding and seed marketing
- Financial management and access to credit
- Gender equity in seed entrepreneurship
- **Case Study**: Women-led seed enterprises in Tanzania

Training Methodology

- Interactive lectures and presentations
- Hands-on laboratory and field demonstrations
- Group discussions and experience sharing
- Real-life case study analysis
- Simulation of certification processes
- Practical assignments and quizzes

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	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com