Training Course on Advanced Agronomy for Specific High-Value Crops

Professional Development Training Course Outline

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

Course Introduction

High-value crops such as avocados, blueberries, herbs, strawberries, tomatoes, and exotic vegetables are rapidly becoming essential to agribusiness profitability due to their premium market prices and growing global demand. Training Course on Advanced Agronomy for Specific High-Value Crops is designed to empower agricultural professionals, agribusiness owners, and extension officers with the latest innovations in crop management, precision farming, soil fertility, pest control, and climate-smart agriculture. This comprehensive training integrates sustainable practices, biotechnology advancements, and integrated crop solutions to increase yield, quality, and profitability in competitive markets.

Participants will benefit from hands-on modules tailored to the agronomic requirements of specific crops, delivered by expert agronomists and agricultural scientists. The course combines scientific principles with real-life case studies and farm-based scenarios, offering a unique platform for knowledge sharing, innovation, and advanced skills development in crop optimization, sustainable irrigation, market access strategies, and value chain integration.

Programme Curriculum

Training Course on Advanced Agronomy for Specific High-Value Crops

Introduction

High-value crops such as avocados, blueberries, herbs, strawberries, tomatoes, and exotic vegetables are rapidly becoming essential to agribusiness profitability due to their premium market prices and growing global demand. Training Course on Advanced Agronomy for Specific High-Value Crops is designed to empower agricultural professionals, agribusiness owners, and extension officers with the latest innovations in crop management, precision farming, soil fertility, pest control, and climate-smart agriculture. This comprehensive training integrates sustainable practices, biotechnology advancements, and integrated crop solutions to increase yield, quality, and profitability in competitive markets.

Participants will benefit from hands-on modules tailored to the agronomic requirements of specific crops, delivered by expert agronomists and agricultural scientists. The course combines scientific principles with real-life case studies and farm-based scenarios, offering a unique platform for knowledge sharing, innovation, and advanced skills development in crop optimization, sustainable irrigation, market access strategies, and value chain integration.

Training Objectives

1. Enhance understanding of crop-specific agronomy practices for optimal productivity.
2. Apply precision agriculture techniques to improve resource efficiency.
3. Utilize climate-smart agriculture strategies to address environmental variability.
4. Implement integrated pest and disease management systems.
5. Analyze soil fertility and develop customized nutrient management plans.
6. Improve post-harvest handling and quality control for market competitiveness.
7. Integrate biotechnology and plant breeding into agronomic practices.
8. Master sustainable irrigation and water management techniques.
9. Apply data-driven decision-making in agronomy using digital tools.
10. Enhance knowledge of value chain development and market access.
11. Promote agroecological practices for biodiversity and soil health.
12. Design farm business models for high-value crop profitability.
13. Use geo-mapping and farm analytics for site-specific crop planning.

Target Audience

1. Agronomists
2. Agricultural Extension Officers
3. Farm Managers
4. Agribusiness Entrepreneurs
5. Horticultural Exporters
6. Academic Researchers
7. Policy Makers in Agriculture
8. Development Agency Professionals

Course Duration: 10 days

Course Modules

Module 1: Crop Zoning and Agroecological Suitability

- Identifying suitable regions for crop cultivation
- Using GIS and remote sensing for agro-zoning
- Climate and soil profiling
- Crop calendar development
- Risk assessment and mitigation planning
- **Case Study: Agroecological zoning for avocado farming in Kenya**

Module 2: Soil Health and Fertility Management

- Soil analysis and nutrient mapping
- Organic and inorganic fertilizer application
- Cover cropping and green manures
- Soil microbial health enhancement
- Erosion control strategies
- **Case Study: Reviving depleted soils in strawberry production**

Module 3: Precision Agriculture and Digital Tools

- GPS and sensor technology in farming
- Drone-based crop monitoring
- Variable rate application systems
- Satellite imagery for decision-making
- Data collection platforms and apps
- **Case Study: Using drones in tomato farms for early disease detection**

Module 4: Crop Propagation and Planting Techniques

- Seed selection and certification
- Grafting, cuttings, and tissue culture
- Nursery management
- Transplanting vs direct seeding
- Plant spacing and density
- **Case Study: Tissue culture banana propagation success in Uganda**

Module 5: Integrated Pest and Disease Management

- Pest scouting and monitoring
- Biological control agents
- Resistant variety selection
- Safe pesticide application techniques
- IPM calendar and action planning
- **Case Study: Managing whiteflies in tomato production organically**

Module 6: Irrigation Systems and Water Management

- Drip and sprinkler systems design
- Soil moisture monitoring tools
- Irrigation scheduling
- Water harvesting and storage
- Efficient water use technologies
- **Case Study: Water-smart blueberry irrigation system in South Africa**

Module 7: Crop Nutrition and Fertilization

- Macronutrient and micronutrient requirements
- Fertigation and foliar application
- Organic nutrient sources
- Deficiency symptom identification
- Crop-specific nutrient programs
- **Case Study: Customized nutrient program for greenhouse peppers**

Module 8: Climate-Smart Agriculture Practices

- Adaptation strategies to climate variability
- Drought-tolerant varieties
- Conservation agriculture
- Carbon sequestration in cropping
- Early warning and weather forecasting tools
- **Case Study: Climate-resilient herb farming in arid zones**

Module 9: Post-Harvest Handling and Value Addition

- Harvest timing and techniques
- Sorting, grading, and packaging

- Cold chain management
- Processing for value addition
- Market quality standards compliance
- **Case Study: Post-harvest innovation in mango exports**

Module 10: Greenhouse and Controlled Environment Agriculture

- Design and setup of greenhouse structures
- Temperature and humidity regulation
- Crop rotation under protected environments
- Pest and disease management
- Yield monitoring under greenhouse systems
- **Case Study: Tomato yields in high tunnel vs open field**

Module 11: Biotechnology and Breeding in High-Value Crops

- Genetic improvement techniques
- Disease-resistant cultivar development
- Marker-assisted selection
- Regulatory frameworks
- Public-private breeding collaborations
- **Case Study: GMO vs non-GMO papaya performance trials**

Module 12: Value Chain Development and Market Linkages

- Stakeholder mapping in value chains
- Input supply and logistics
- Contract farming and aggregation models
- Export regulations and standards
- Branding and certification (GlobalGAP, Organic)
- **Case Study: Avocado farmer cooperatives in Latin America**

Module 13: Financial Planning and Farm Business Modeling

- Cost-benefit analysis
- Cash flow projections
- Record keeping and digital finance tools
- Access to agri-financing and insurance
- Risk assessment and contingency planning
- **Case Study: Profitable herb farming business model in Ethiopia**

Module 14: Sustainable Crop Rotation and Intercropping

- Principles of crop diversification
- Crop sequencing for soil health
- Intercropping for pest control
- Companion planting strategies
- Land use efficiency improvement
- **Case Study: Intercropping tomato with basil for pest deterrence**

Module 15: Monitoring, Evaluation, and Impact Assessment

- Developing KPIs for agronomic performance
- Field trial design and data collection
- Baseline and endline survey techniques
- Participatory monitoring tools

- Impact reporting for stakeholders
- **Case Study: Evaluating impact of agronomic training in Rwanda**

Training Methodology

- Interactive expert-led presentations
- Field demonstrations and hands-on exercises
- Group-based problem-solving tasks
- Case study analysis and peer discussions
- Digital simulations and virtual field tours
- Real-time data interpretation using farm apps

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

Start Date	End Date	Location	Price
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

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