



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Macadamia Nut Dehusking And Processing Techniques Training

Agriculture and Nature Conservation / Secondary Agriculture

Unit Standard 115794 · NQF Level 2 · 12 Credits · 9 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills required to safely and efficiently dehusk and process macadamia nuts in a commercial setting. Participants will gain hands-on techniques for handling, sorting, and quality control, ensuring compliance with industry standards.

Category	Agriculture and Nature Conservation
Subfield	Secondary Agriculture
Unit Standard	115794
Accreditation	SAQA Accredited · NQF Level 2 · 12 Credits
Duration	9 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply correct dehusking techniques to minimize nut damage.
- Implement sorting and grading procedures according to industry standards.
- Analyze nut quality and identify defects for rejection or re-processing.
- Demonstrate safe operation of dehusking and processing machinery.
- Evaluate drying and storage methods to maintain nut quality.
- Design a basic workflow for efficient macadamia nut processing.

WHO SHOULD ATTEND

- This course is designed for agricultural workers, processing plant operators, and quality assurance staff involved in macadamia nut post-harvest handling and processing.

COURSE OUTLINE

Day 1: Introduction to Macadamia Nut Industry and Quality Standards

- Overview of macadamia nut cultivation and market trends.
- Quality parameters: kernel recovery, moisture content, defects.
- Food safety regulations and HACCP principles.
- Introduction to processing equipment and flow.
- Personal protective equipment (PPE) and safety protocols.
- Record keeping and traceability basics.

Day 2: Pre-Processing and Receiving of Nuts-in-Shell (NIS)

- Receiving protocols: documentation, weight verification.
- Sampling techniques for moisture and quality assessment.
- Storage requirements: temperature, humidity, ventilation.
- Sorting out foreign material and damaged nuts.
- Pre-cleaning equipment: destoners, magnets, screens.
- Hygiene practices during intake.

Day 3: Dehusking Operations and Equipment

- Types of dehuskers: drum, roller, centrifugal.
- Operating principles and adjustments for nut size.
- Safety features and lockout/tagout procedures.
- Troubleshooting common problems: jamming, kernel damage.
- Quality checks post-dehusking: kernel integrity.
- Cleaning and maintenance of dehuskers.

Day 4: Drying and Moisture Management

- Drying principles: moisture migration, equilibrium.
- Drying methods: hot air, solar, silo drying.
- Temperature and airflow control.
- Moisture measurement: oven method, moisture meters.
- Drying curves and batch management.
- Effects of over-drying or under-drying.
- Energy efficiency and fire safety.

Day 5: Cracking and Kernel Separation

- Cracking mechanisms: impact, compression, shear.
- Calibration for different nut sizes.
- Kernel separation: gravity tables, air classifiers.
- Optical sorting for color and defects.
- Kernel grading standards: whole, halves, pieces.
- Yield optimization and waste reduction.
- Maintenance of cracking and separation equipment.

Day 6: Roasting, Flavoring, and Packaging

- Roasting profiles: temperature, time, batch vs. continuous.
- Oil roasting vs. dry roasting.
- Flavoring application: salt, spices, coatings.

- Packaging materials: vacuum, nitrogen flushing.
- Labeling requirements: nutritional info, batch codes.
- Shelf life testing and storage conditions.
- Hygiene in packaging area.

Day 7: Quality Control and Laboratory Testing

- Sensory evaluation: taste, texture, appearance.
- Moisture and oil content analysis.
- Aflatoxin testing and mycotoxin control.
- Microbiological testing: E. coli, Salmonella.
- Rancidity tests: peroxide value, free fatty acids.
- Calibration of lab instruments.
- Documentation and reporting.

Day 8: Maintenance, Hygiene, and Safety Compliance

- Preventive maintenance plans: lubrication, belt tension.
- Cleaning-in-place (CIP) and sanitization.
- Pest control programs.
- Safety audits and hazard identification.
- Fire extinguisher use and emergency procedures.
- Personal hygiene and handwashing protocols.
- Legal compliance: OHS Act, food safety standards.

Day 9: Integration, Assessment, and Continuous Improvement

- Simulated production run: from receiving to packaging.
- Troubleshooting scenarios and problem-solving.
- Data analysis: yield, downtime, quality metrics.
- Root cause analysis for defects.
- Lean principles and waste reduction.
- Recap of unit standard outcomes.
- Final assessment and feedback session.

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **12 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 33,300.00	R 33,300.00
1	In-House	R 43,300.00	R 43,300.00
1	On-Campus (Pretoria)	R 50,000.00	R 50,000.00

UPCOMING SESSIONS

Start	End	Method	Venue
07 Aug 2026	19 Aug 2026	On-Campus	Johannesburg, South Africa
10 Aug 2026	20 Aug 2026	On-Campus	Cape Town, South Africa
11 Aug 2026	21 Aug 2026	On-Campus	Dubai, UAE
12 Aug 2026	24 Aug 2026	On-Campus	Pretoria, South Africa
13 Aug 2026	25 Aug 2026	On-Campus	Abu Dhabi, UAE
14 Aug 2026	26 Aug 2026	On-Campus	Durban, South Africa
14 Aug 2026	26 Aug 2026	On-Campus	Mauritius
17 Aug 2026	27 Aug 2026	On-Campus	Dubai, UAE

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 115794) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call +27 12 004 8389 or WhatsApp +27 65 077 6310 and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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