CORE CONCEPT

Olive Cultivation and Olive Oil Production Course: Hedgerow Orchards, Milling and Oil Quality

6 – 10 December 2026
Dammam - Eastern Province five-star

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Ref: 2123_30749 **Date:** 6 – 10 December 2026 **Location:** Dammam - Eastern Province five-star **Fees:** 19500 SAR

Introduction:

Olive cultivation and olive oil production, covering hedgerow orchards, milling and oil quality, is a 1-week course for olive estate, orchard engineering, mill operations and agri-investment units, ending with an Olive Estate and Mill Operating Plan for a case organisation. Estates in arid climates lose yield and oil grade when hedgerow blocks are poorly laid out, deficit irrigation is guessed, olive fruit fly goes unmonitored, harvest misses the right maturity index and decanter settings strip aroma from the oil. Nominees already supervise groves, irrigation or mill shifts and work through case studies built on estate records, maturity samples and laboratory results. CoreConcept Training Center delivers this olive cultivation and olive oil production course.

Course Objectives:

- Assess olive cultivars, pollinizer needs and site constraints to set the planting and production targets of an arid estate
- Design intensive and super-intensive hedgerow blocks with planting density, row orientation and harvester access
- Schedule regulated deficit irrigation and fertigation by phenological stage using leaf, soil and water data
- Time mechanical harvest rounds from fruit maturity index sampling and organise decanter milling and malaxation settings
- Grade olive oil against the IOC trade standard and Codex standard using acidity, peroxide value, UV absorbance and sensory panel results
- Control olive fruit fly, quarantine diseases, oil storage and pomace and wastewater handling within an Olive Estate and Mill Operating Plan

Target Audience:

- Olive estate management units responsible for block yields, seasonal labour and grove budgets
- Agricultural engineering units responsible for orchard layout, irrigation networks and fertigation equipment
- Olive mill operations units responsible for fruit reception, decanter lines, oil storage and by-product handling
- Quality and laboratory units responsible for oil sampling, chemical testing and grade allocation
- Agri-investment and agricultural public sector units responsible for appraising, licensing or supporting olive projects

Course Outline:

Day 1: Olive Sector Context and Arid Estate Baseline

- Olive Tree Phenology, Flowering and Alternate Bearing Cycle
- Oil Cultivar Selection, Pollinizers and Nursery Stock Quality
- Arid Site Constraints Including Heat, Salinity and Calcareous Soils
- Olive Value Chain Mapping From Grove to Bottled Oil
- Estate Baseline Survey of Blocks, Wells and Mill Capacity

Day 2: Orchard Systems, Water Models and Oil Quality Standards

- Traditional, Intensive and Super-Intensive Hedgerow System Comparison
- Hedgerow Planting Density, Row Orientation and Trellis Layout
- Regulated Deficit Irrigation Scheduling by Phenological Stage
- Fertigation Programme Built on Leaf and Soil Analysis
- IOC Trade Standard and Codex Standard Olive Oil Categories

Day 3: Canopy Work, Harvest Timing and Mill Practice

- Hedgerow Pruning and Canopy Width Control for Harvesters
- Fruit Maturity Index Sampling to Time Harvest Rounds
- Over-the-Row and Trunk Shaker Harvest Logistics
- Two-Phase and Three-Phase Decanter Line Operation
- Malaxation Time and Temperature Settings for Aroma Retention

Day 4: Crop Protection, Oil Defects and By-Product Risk

- Olive Fruit Fly Monitoring With Traps and Action Thresholds
- Verticillium Wilt and Xylella Quarantine Surveillance Routines
- Free Acidity, Peroxide Value and K232 and K270 Testing
- Sensory Panel Defects, Tank Storage and Blending Controls
- Pomace and Olive Mill Wastewater Handling and Reuse Options

Day 5: Case Study Work and the Olive Estate and Mill Operating Plan

- Case Olive Estate Data Pack With Yields and Oil Grades
- Deficit Irrigation and Fertigation Calendar for the Case Hedgerow Blocks
- Harvest and Milling Schedule Matched to Maturity Index Data
- Oil Quality Control and By-Product Plan for the Case Mill
- Olive Estate and Mill Operating Plan Completion and Review

Skills You Will Gain:

- Olive Cultivar Assessment
- Hedgerow Orchard Design
- Deficit Irrigation Scheduling
- Olive Fruit Fly Surveillance
- Maturity Index Harvest Timing
- Decanter and Malaxation Control
- Olive Oil Grading
- Mill By-Product Management

Why Attend This Course:

- Deliver an Olive Estate and Mill Operating Plan for a case organisation to the estate director and the mill or investment lead
- Decide harvest rounds, decanter set-up and oil grade allocation from maturity index and laboratory evidence
- Avoid downgraded oil, water waste from guessed irrigation and fines or odours from unmanaged olive mill wastewater
- Share maturity sampling sheets, fly trap records, oil test logs and irrigation calendars with grove and mill colleagues

Conclusion:

Back at work, the participant gives the estate director and the mill or investment lead an Olive Estate and Mill Operating Plan that sets block layouts, deficit irrigation and fertigation calendars, pest surveillance rounds, harvest windows, decanter settings, oil grading checks and pomace and wastewater routes. Management uses it to approve water, labour and mill budgets and to judge new hedgerow plantings. After the first harvest under the plan, the unit should compare oil yield, grade-out, water use and by-product volumes with the plan and adjust it.

Frequently Asked Questions FAQ:

What should participants know before an olive cultivation and olive oil production course?

Participants should already work in olive groves, orchard engineering, mill operations or agricultural investment. No plant science degree is needed. Bringing block maps, irrigation records, maturity samples or oil test results helps them apply the case work and the final plan to their own estate.

How does olive cultivation and olive oil production training differ from an edible oil refining or general farm irrigation course?

It follows one tree crop from hedgerow planting to graded virgin oil, including maturity index, decanter milling and sensory grading. Refining courses treat crude oils from many seeds in a refinery, and irrigation design courses size pumps and pipe networks for any crop.

Why does harvest timing matter so much in olive cultivation and olive oil production?

Harvest timing sets the balance between oil yield and quality. Early fruit gives more polyphenols and fresher aroma but less oil, while late fruit gives more oil that oxidises faster, so maturity index sampling guides each harvest round and mill booking.

What do participants take back from the olive cultivation and olive oil production course?

Participants take back an Olive Estate and Mill Operating Plan for a case organisation, with block layouts, irrigation and fertigation calendars, pest rounds, harvest and milling schedules, oil grading checks and a pomace and wastewater plan they can adapt to their own estate.