

From dependency to autonomy

Soil Health & Biology

OLON OLA

Ilias Farlekas

Greece · Skala, Laconia, Peloponnese

FARM AREA

Total: 30 ha
Regenerative: 100%

PRODUCTION

Extra virgin olive oil, table olives

FARMING APPROACH

Regenerative, uncertified

FEATURED PRACTICE

No-till soil management with organic-matter return

REGENERATIVE SINCE

2012

"... move together with nature, letting it do its work."

Ilias Farlekas, farmer

No production loss during or after the transition

CASE STUDY GR01



REGE-FARMS

Co-funded by the European Union

Meet the farmer and the farm

Farm factsheet

Information	Farm details
Farm name	OLON OLA
Type of production	Extra virgin olive oil (single-variety and blends), table olives
Country	Greece
Region / location	Skala, Evrotas, Laconia
Altitude / climate	150–200 m, Parnon foothills; dry, hot summer
Average annual rainfall	500–700 mm/yr
Soil type / texture	Red clay (active CaCO3 13.5%, pH 7.23), calcareous (9.92%, pH 7.16), mixed; slightly stony
Total farm area	30 ha
Area under regenerative practices	30 ha (100% of total)
Featured practice area	30 ha: whole holding, in two plots
Farming approach	Regenerative, uncertified; in several respects beyond organic
Regenerative practices from	2012
Crops / livestock / products	Four varieties: Koroneiki, Myrtolia (local), Kalamon, wild olive. Bees; a local keeper's sheep (grazing agreement)
Other relevant data	Ample water: mountains, Evrotas river, groundwater
Farm website	olonola.com
Farmer or farm contact	Ilias Farlekas, farmer

150-200 m above sea level. Semi-upland, on the foothills of Mount Parnon; typical Mediterranean climate with a dry, hot summer.



Ilias Farlekas, farmer, OLON OLA, at the World Olive Center for Health (WOCH) award ceremony • date: 2025

Farmer profile

Ilias Farlekas manages the family holding, the third generation on an olive grove established by his grandfather. He prepares his own treatment formulations, observing the soil and the trees to make exactly what the grove needs, in the way it needs it.

Case focus

How the holding replaced ever-increasing fertilisation with an integrated, no-till system that builds soil organic matter, so that the soil, rather than external inputs, feeds the trees, and how this links to documented olive oil quality.

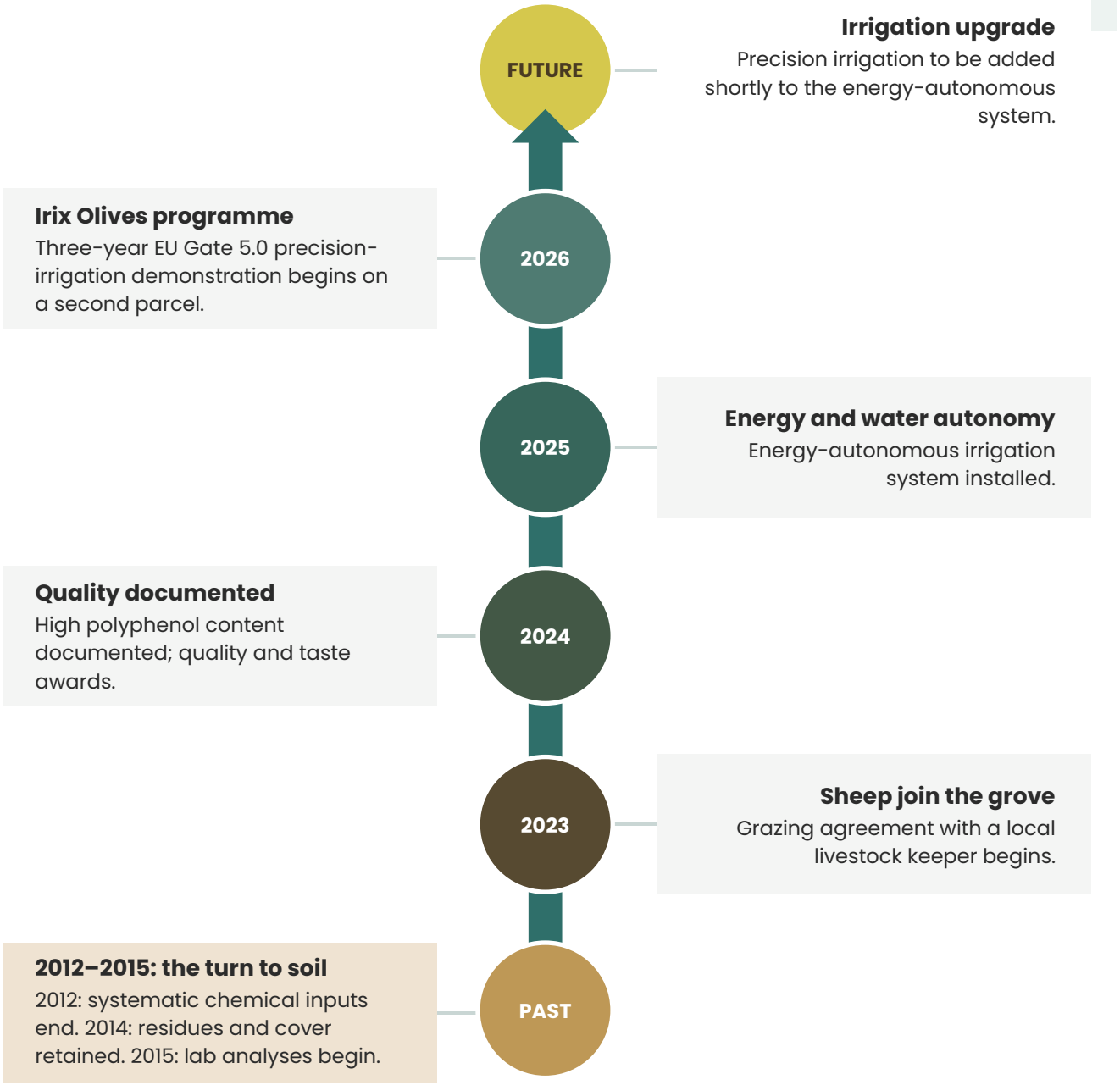
The farm and local context

Parts of today's grove were once vineyards and were gradually converted to olives. At altitude of 150-200 m above sea level. Typical Mediterranean climate with a dry, hot summer. Soil types vary across the holding, as the factsheet shows. Irrigation on half the property is energy-autonomous. Scattered fruit trees and vines are kept for biodiversity and household use.

Regenerative transition timeline

Why and how the farm changed

OLON OLA moved from input-led conventional management to regenerative, soil-building management over 14 years and 30 hectares, through the milestones below.



From challenge to regenerative practice

Starting challenge

Doses and costs rose but tree response did not improve; fungal treatments (e.g. for peacock spot) failed; degraded soil held little water.

Why the farm changed

Against the advice followed until then, he broke with the “more inputs” logic.

Featured regenerative practice or system

No-till: shredded residues stay (none burned), mown cover becomes mulch, and a local keeper’s penned sheep graze and manure the grove.

Supporting components

Analysis-led decisions • Emergency-only inputs • Multi-variety grove • Solar irrigation

First steps and sequence

Systematic inputs stopped first, then shredding, cover and less tillage; livestock and irrigation last.

Tools, labour and timing

Solar power runs a borehole pump; a tank at the highest point feeds the drip lines by gravity.

Support and learning

Specialised lab analyses of soil, leaves, fruit and oil guide decisions; a second parcel hosts Irix Olives (EU Gate 5.0) valve trials.

Implementation difficulties and responses

Stopping inputs against advice was risky. For emergencies only, he kept biological products, mainly humic and fulvic acids (e.g. from seaweed).

Practice transformation

Five changes replaced an input-led routine with soil-led management.

Previous approach	Regenerative practice or system
Standardised fertilisation and plant protection, rising doses	Emergency-only inputs, guided by soil and oil analyses
Residues burned; spontaneous vegetation treated as a weed	Shredded residues and mown vegetation left as mulch
No livestock	Neighbour’s sheep: pen in the grove, grazing and manure
Irrigation not designed on need; no energy autonomy	Solar-powered drip irrigation; sensor-guided valves
Ploughing and surface tillage	No tillage for the past 10 years, apart from exceptions



Sheep from a nearby shepherd get chemical-free grass and clean water; the grove gets manure



Note the storage tank on the highest ground, above the grazing flock, date: August 2026

Results and economic implications

Measured results

-50%

Fertilizer and pesticide costs

From a €100/ha baseline

Source: farmer-reported

+5.5%

Soil organic carbon

6.5% from 1% without sheep (2024)

Source: laboratory analyses

0%

Yield loss from transition

Production remained unchanged

Source: farmer

Evidence and observed change

Indicator / evidence	Before	After / change	Source and status
Irrigation water use	Without drippers	Same volume with drip despite higher temperatures	Farmer-reported
Pest and disease severity	Treatments failing	Attacks less severe	Farmer-reported
Water and input efficiency	Standard programme	Significant increase	Farmer-reported

Investment, costs and viability

Figures are farmer-reported unless a laboratory or award source is shown.

Economic aspect	Before / previous	After / change	Source / status
Input and operating costs (fertilisers, pesticides, herbicides, fuel, water)	€670/ha total; rising ineffective doses	Over 50% lower; irrigation energy near zero	Farmer-reported
Labour or machinery needs	3–4 field operations a year	7–8 a year: cover, shredding, monitoring	Farmer-reported
Yield or production stability	Highly variable with weather	Much more stable; varieties spread risk	Farmer-reported
Product quality or market value	Not documented	ATHENA, KOTINOS taste awards; WOCH distinction	Lab analyses; award records
Investment needed for the practice	Conventional equipment	Shredders, solar irrigation, valves	Farmer; analyses €1,500+/yr
New market opportunity or direct sales	Wholesale to the olive mill	Own brand; direct sales, exports	Farmer-reported
Farmer assessment of economic viability	Rising costs, no matching return	Production costs down 30%+ overall	Farmer assessment

Solar array powering the irrigation borehole pump • Date: August 2026



Lessons and adoption



Who can apply this?

Mediterranean olive growers facing degraded organic matter, input costs up 30–40% (transport, geopolitics, energy crisis), worsening drought and hard-to-price quality.

Conditions and adaptations

The near-zero-cost elements transfer most easily: shredding and leaving all pruning residues, keeping spontaneous cover and ending tillage. Where livestock farming is declining and groves lack organic matter, keeper cooperation solves both problems. Adapt to water: semi-arid or island groves should favour soil-moisture retention over irrigation.

Remaining limitations

Livestock cooperation needs good relations with the keeper, to avoid damage, and good neighbourly conditions.



Practical adoption

First step: treat residues and mown cover as a free input. Monitor with soil and product analyses.

1. When doses fail, check the soil: years of fertiliser and herbicide use often damage it.
2. Host a local keeper's horses, cattle or sheep: space, safe feed or water for manure.
3. Budget for labour: regenerative management almost doubled field operations here.
4. Allow time: soil results are measured in years.

Next phase

Continued experimentation in cultivation, pruning and harvesting to optimise quality and production.

Observed benefits, trade-offs

Ongoing trade-offs or limitations

Constant observation, experimentation and adjustment raise the cost of cultivation, and analyses are needed for prevention.

Observed benefits and what worked

Livestock integrated without owning animals, and energy autonomy for irrigation (farmer's assessment).

Further information

olonola.com • Project: rege-farms.eu

Additional case insight

OLON OLA • From soil to bottle

Linking soil care to oil quality

Here, regenerative management is tied directly to the final product. Laboratory analyses of the oil document polyphenols at 652 mg/kg, oleocanthal at 216 mg/kg and oleacein at 125 mg/kg. This polyphenol content is approximately 2.5 times the threshold set by Reg. (EU) 432/2012 for the authorised health claim on protecting blood lipids from oxidative stress. Yet a high-specification oil demands considerably more care and labour, which the sale price does not automatically reflect: capturing that value remains a challenge.



Branding of OLON OLA's medicinal-quality extra virgin olive oil • Credit: OLON OLA

Farmer voice

"We have to be patient and move together with nature, letting it do its work. We shouldn't force it with artificial means just to increase production, because this brings about an unfavourable future."



Award badges supplied by the farm: ATHENA silver 2024 and bronze 2025; KOTINOS silver 2024 and 2025; Olympia Health & Nutrition silver 2024–2025 • Composite of the supplied badge images

Supporting evidence and sources

Oil analysis results and award badges supplied by OLON OLA. Analysis: World Olive Center for Health, March 2025. Health claim: Commission Regulation (EU) No 432/2012.

The farm in pictures











1 Grove in harvest season • 2 Vines and fruit trees across the grove • 3 Beehives across the grove • 4 Olive varieties for blends and risk spreading



Credits

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REGE-FARMS

REGE-FARMS helps farmers across Europe transition to regenerative agriculture through practical knowledge and tools, digital training, case studies and hands-on field days. It supports soil health, biodiversity and carbon sequestration, strengthening climate resilience and the long-term sustainability of farming systems.

To support practical learning, REGE-FARMS case studies use an **adapted PICO model—Problem, Innovation, Comparison and Opportunity**—to connect each farm's challenges and practices with observed changes and lessons for other farmers.

Warm thanks to **Ilias Farlekas** for sharing their time, experience and practical knowledge. Their experience helps other farmers consider what could work on their own farms. We thank the **European Union for co-funding REGE-FARMS through Erasmus+**, enabling farmers to share knowledge and learn across Europe.

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Map: Created with mapchart.net

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