

STANDARD FOR MACADAMIA GROWERS

SD-GMAC. Version 1.1 December 2025

ABOUT THIS STANDARD

The **INC Sustainability Certification** promotes a standardized, streamlined, sector-specific framework for assessing sustainable practices within the nut and dried fruit industry.

This Standard evaluates the production of macadamias through the lens of **Environmental, Social, and Governance (ESG)** considerations. The Standard focuses on sustainable growing practices, using weighted criteria that combine binary (yes/no) responses with quantitative indicators.

Companies holding certain industry certifications may be exempt from auditing some performance measures. Accepted certifications include:

- GHG Protocol
- GLOBAL G.A.P. (FSA, SPRING, GRASP, BIODIVERSITY)
- ISO 14046
- ISO 14067
- SAI Platform (FSA)
- SMETA 4 Pillar

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CERTIFICATION REQUIREMENTS

To qualify for certification, a company must achieve a minimum score of **50 points**. Following the audit, the company will be awarded 1-3 stars based on its total score:

- **1 star:** 50-59 points
- **2 stars:** 60-69 points
- **3 stars:** 70+ points

Mandatory Criteria: Certain criteria are classified as mandatory. These must be met in order to be eligible for certification, regardless of total points.

Minimum Scoring: A minimum score is required for each category. Failure to achieve the minimum score will result in disqualification, regardless of total points.

Recognized Certifications: Companies holding certain third-party certifications may be exempt from auditing some performance measures. If the company holds a recognized third-party certification (highlighted in green), it is considered to fulfill all criteria in the corresponding category.

Categories	Criteria	Max. Points
1. Soil Management	6	11
2. Water Source	7	10
3. Water Use	8	10
4. Agricultural Inputs	9	12
5. Biodiversity	8	13
6. Carbon Footprint	6	10
7. Safety at Work	6	9
8. Human & Labor Rights	16	15
9. Governance	9	10
TOTAL	75	100

TRAINING DOCUMENTS

To facilitate the understanding and implementation of this Standard, several supporting documents have been developed:

- **Regulations and Requirements:** Defines the general functioning of the certification ([RR_v1.1_June 2026](#)).
- **Interpretation Guide:** Clarifies the intent of each criterion and provides guidance on acceptable evidence, as well as any exceptions for compliance ([IG-G_v1.0_June 2026](#)).
- **History Log:** Tracks all changes from previous versions (No updates have been yet performed from the original publication).

As scientific knowledge and technological developments evolve, these documents may be updated periodically to reflect changes in definitions, interpretations, and best practices. Users are therefore advised to refer to the latest version, as indicated by the version number and publication date.

All supporting documents take effect on their date of publication and supersede any previous versions. Updates apply prospectively and do not affect audits conducted before to their release.

Category 1. Soil Management

Min. Score: 6 Max. Points: 12

Subcategory		Criterion
1.1	Certification	Companies holding a Farm Sustainability Assessment (FSA) certification at Silver level or higher, either through GLOBAL G.A.P. or the SAI Platform, are considered to fulfill all criteria in this category.
1.2	Soil Erosion	The company designs farms to minimize erosion (e.g., contour farming) and uses localized irrigation systems, if irrigated.
1.3	Minimal Tillage	The company manages at least 50% of its growing area under minimal tillage (a single shallow pass per season, limited to 10 cm) to preserve soil integrity and biological activity.
1.4	Cover Crops	The company maintains planted or spontaneous cover crops between rows on at least 25% of the growing area in an average year. It is recommended to rotate the cover crops (nitrogen fixers, soil erosion preventers) between seasons among different parts of the farm on a cyclical manner. <i>If cover crops are not feasible due to low annual rainfall (150L/m²) or heavy clay soils (>55% clay content), which causes root rot, this criterion is considered fulfilled.</i>
1.5	Biomass Handling Mandatory	Pruning remains are shredded, composted, transformed into energy biomass or biochar, or left on the soil on at least 33% of the growing area.
1.6	Soil Testing	The company conducts soil tests for nutrients and other indicators of soil health at least once every three years.

Category 2. Water Source

Min. Score: 5 Max. Points: 10

Subcategory		Criterion
2.1	Certification	Companies holding an ISO 14046 certification for water footprint are considered to fulfill all criteria in this category.
2.2	Rainfed Farms	The company operates fully rainfed farms, or uses supplementary irrigation no more than twice per season.
2.3	Water Source Monitoring Mandatory	The company identifies and measures all water sources at least once every three years.
2.4	Water Reservoirs	The company utilizes water reservoirs with minimal environmental impact or, if no reservoirs exist, the company performs groundwater replenishment practices.
2.5	Open Wells	The company ensures that all wells are securely sealed, with openings elevated above ground level to prevent runoff contamination.
2.6	Water Consumption Records	The company keeps records of water consumption for the past two seasons, differentiating between bearing and non-bearing orchards.
2.7	Water Management Plan	The company maintains a water management plan to monitor usage and consumption.
2.8	Water Impact Assessment	The company has conducted or participated in a water impact assessment, unless water is sourced from a third-party public or private entity and the data required for the assessment are unavailable. <i>*Exception: the company sources its water from a third party, public or private entity, and cannot have access to data/information to provide an impact assessment.</i>

Category 3. Water Use

Min. Score: 5 Max. Points: 10

Subcategory		Criterion
3.1	Certification	Companies holding a GLOBAL G.A.P. SPRING certification are considered to fulfill all criteria in this category.
3.2	Rainfed Farms	The company operates fully rainfed farms, or uses supplementary irrigation no more than twice per season, may skip following subcategory to 3.7 <i>Water Runoff</i>
3.3	Precision Irrigation	The company applies precision irrigation on at least 50% of the growing area in farms that are not fully rainfed.
3.4	Legal Compliance Mandatory	The company uses irrigation water in accordance with all applicable regulations and permits.
3.5	Smart Watering	The company uses soil probes to monitor soil moisture and inform irrigation decisions on at least 50% of irrigation sectors.
3.6	Water Allocation Calendar Mandatory	The company maintains a calendar detailing monthly water allocation requirements in accordance with the orchards' physiological stages.
3.7	Water Runoff	The company implements at least two measures to reduce runoff, including side barriers, contour bunds, ridges, percolation trenches, or retention basins. <i>Exceptions apply to very low rainfall areas (<150L/m²).</i>
3.8	Runoff – Coastal Locations	The company annually analyzes leachates for fertilizers, herbicides, and pesticides when operating near marine ecosystems. <i>If operations do not pose a risk to marine ecosystems, this criterion is considered fulfilled by default.</i>

Category 4. Agricultural Inputs (1/2)

Min. Score: 6 Max. Points: 12

Subcategory		Criterion
4.1	Certification	Companies holding a Farm Sustainability Assessment (FSA) certification at Silver level or higher, either through GLOBAL G.A.P. or the SAI Platform, are considered to fulfill all criteria in this category.
4.2	Record Keeping Mandatory	The company keeps a registry of chemical and input applications (including quantity, dose, date, location, and applicator).
4.3	Orchard Fertilization Calendar Mandatory	The company maintains a calendar with monthly requirements on fertilizer allocation aligned with orchard physiological stage and development.
4.4	Nutrient Analysis Mandatory	The company conducts water, soil, and plant analyses to detect deficiencies and guide input applications. <i>For systems where no fertilizers are used, this criterion is fulfilled by default.</i>
4.5	Fertigation	The company uses fertigation, where appropriate, as part of its fertilizer application strategy across at least 25% of growing areas. <i>For rainfed systems where fertigation is not possible, this criterion is considered fulfilled by default.</i>
4.6	Herbicide Monitoring & Reduction	The company monitors herbicide use, and optionally has achieved a reduction on bearing orchards.

Category 4. Agricultural Inputs (2/2)

This section is a continuation of the preceding table.

Subcategory		Criterion
4.7	Alternative Control Methods	The company applies alternative control methods to complement or reduce the use of synthetic phytosanitary chemicals (i.e. biological control, cultural practices, botanical or natural products, etc.).
4.8	Eco-Friendly Fertilizers	The company applies eco-friendly fertilizers to complement or replace synthetic products, with natural fertilizers accounting for at least 20% of the total synthetic fertilizer use by weight or volume, as documented in the chemical and input application records.

Category 5. Biodiversity (1/2)

Min. Score: 6 Max. Points: 12

Subcategory		Criterion
5.1	Certification	Companies holding a GLOBAL G.A.P. FSA or BIODIVERSITY certification are considered to fulfill all criteria in this category.
5.2	Site Maps Mandatory	The company maintains site maps that clearly identify sensitive areas, such as buffer zones and reservoirs.
5.3	Buffer Zones	The company operates adjacent to areas of high biodiversity (e.g., forests, rivers, conservation areas, or wetlands) and has established buffer zones along farm borders of at least 10 meters in width, composed of wild native species or spontaneous vegetation. <i>If farms are not adjacent to high-biodiversity areas, this criterion is considered fulfilled by default.</i>
5.4	Biodiversity Impact Assessment	The company maintains biodiversity impact assessments for all sites.
5.5	Endangered & Invasive Species	The company implements practices to protect species classified as threatened on the IUCN Red List and their habitats, prevent the introduction of invasive species, and monitor and manage any existing invasive species on-site.

Category 5. Biodiversity (2/2)

This section is a continuation of the preceding table.

Subcategory		Criterion
5.6	New Varieties	The company cultivates or financially supports the testing of at least two new crop varieties, either on its own farms or through participation in industry research programs or associations. <i>If the company cultivates less than 40.5 hectares (100 acres), this criterion is fulfilled by default.</i>
5.7	Biodiversity Reservoir	The company reserves at least 1% of its cultivated area for biodiversity conservation. Fallow land is considered as equivalent.
5.8	High Conservation Value Mandatory	The company has not established any plantations in areas designated as high conservation value by the Forest Stewardship Council in the past three years.

Category 6. Carbon Footprint

Min. Score: 5 Max. Points: 10

Subcategory		Criterion
6.1	Certification	Companies holding a certification of their carbon footprint according to ISO 14067 or the GHG Protocol Product Standard, covering Scope 1, 2, and 3 emissions, are considered to fulfill criteria 6.2, 6.3 and 6.4 from this category.
6.2	Fuel Efficiency and Carbon Monitoring	The company measures carbon emissions from fuel use from farm machinery (e.g., tractors, harvesters, sprayers) and maintains a logbook to ensure farm machinery is operated efficiently.
6.3	Fertilizer Carbon Footprint	The company monitors fertilizer inputs, calculates their associated carbon footprint, and optionally has achieved at least a 3% reduction in fertilizer-related emissions for an equivalent volume of handled product over the past three years.
6.4	Energy Consumption and Carbon Monitoring	The company measures carbon emissions from energy consumption (e.g., generators, irrigation).
6.5	Renewable Energies	The company sources at least 25% of its electricity from renewable energy (e.g., grid supply, onsite generation, power purchase agreements (PPAs)).
6.6	Biomass Handling Mandatory	The company does not conduct controlled burning of biomass, except when necessary for the disposal of diseased plant material.

Category 7. Safety at Work

Min. Score: 4 Max. Points: 9

Subcategory		Criterion
7.1	Certification	Companies holding a SMETA 4 Pillar or GLOBAL G.A.P. GRASP certification are considered to fulfill all criteria in this category.
7.2	Safety at Work	The company implements workplace safety measures, maintains policies to ensure safety at work (first aid protocols, emergency plans, etc.) and monitors its safety performance.
7.3	Continuous Safety Improvement	The company promotes continuous safety improvement, including regular incident reviews, and evaluates each incident to identify system, situational, and procedural improvements.
7.4	Local Languages	The company provides safety procedures in local languages and offers communication support to ensure migrant workers fully understand them.
7.5	Personal Protective Equipment (PPE) Mandatory	The company supplies safety and personal protective equipment (PPE) for required tasks.
7.6	Chemical Storage	The company stores chemicals and their residues safely to maintain effectiveness, prevent environmental contamination, and avoid degradation. All chemicals and residues are properly labeled and stored above ground in covered areas protected from rain and sunlight.

Category 8. Human & Labor Rights (1/3)

Min. Score: 14 Max. Points: 15

Subcategory		Criterion
8.1	Certification	Companies holding a SMETA 4 Pillar or GLOBAL G.A.P. GRASP certification are considered to fulfill all criteria in this category.
8.2	Child Labor Mandatory	The company does not employ workers below minimum ages (per ILO C138).
8.3	Forced Labor Mandatory	The company does not employ or benefit from any form of forced, bonded, or coerced labor (per ILO C29 & C105).
8.4	Young Workers Mandatory	The company prohibits young workers (ages 15 to 17) from doing hazardous work, night shifts, overtime, or excessive working hours, in accordance with ILO Convention 138.
8.5	Non-Discrimination Mandatory	The company enforces policies and protocols to protect workers from discrimination based on race, color, sex, religion, political opinion, national origin, or social origin, as defined by ILO Convention 111.
8.6	Respect and Fair Treatment of Workers Mandatory	The company has a formal, implemented policy that explicitly prohibits violence, as well as sexual, verbal, and psychological harassment.

Category 8. Human & Labor Rights (2/3)

This section is a continuation of the preceding table.

Subcategory		Criterion
8.7	Women Workers Mandatory	Women receive equal remuneration and working conditions for the same work.
8.8	Disciplinary Practices Mandatory	The company ensures that disciplinary measures are fair, transparent, and never involve violence, humiliation, or wage deductions as punishment.
8.9	Adaptive Working Conditions Mandatory	The company makes reasonable adjustments to working conditions, hours, or facilities to respect the diverse needs of workers.
8.10	Legal Employment Terms Mandatory	The company ensures that employment terms (1) comply with all applicable laws, (2) respect workers’ rights, (3) are clearly communicated in a language understood by the worker and freely agreed to by the worker, and (4) are consistently honored by the employer. Under no circumstances are workers required to pay for their employment.
8.11	Working Hours	The company respects the maximum working hours prescribed by applicable local laws (or ILO standards if they are stricter), ensures that a regular workweek does not exceed 48 hours (yearly average), provides at least one optional full day of rest in every seven-day period, and guarantees that overtime is voluntary, limited in duration, and compensated at a premium rate.

Category 8. Human & Labor Rights (3/3)

This section is a continuation of the preceding table.

Subcategory		Criterion
8.12	Fair Treatment of All Workers Mandatory	The company provides equal employment terms for temporary, migrant, part-time, and permanent workers.
8.13	Legal Wage Payment Mandatory	All workers are paid wages that meet or exceed the applicable legal minimum wage (or any higher minimum set by a competent authority) and wages and overtime compensation are paid regularly (at least monthly), in full, and documented. Verification must not infringe data protection.
8.14	Social Security Protection Mandatory	The company provides workers with social security protection in accordance with the laws and regulations of the country where the work is performed.
8.15	Terms of Employment Mandatory	Basic terms of employment include job description, location, working hours, salary or pay rate, overtime pay rate, frequency of payment, medical leave and protections in case of illness, disability or accident, and notice period. This refers both to temporary and fixed workers.
8.16	Freedom of Association and Collective Bargaining Mandatory	The company recognizes and respects the rights of employees and farmer group members to freely form, join, or refrain from joining representative associations of their choice. Suppliers and farmer group leaders shall facilitate and respect the right to engage in collective bargaining in line with ILO C87 & C98, ensuring that any agreements reached are documented, upheld, and enforced.

Category 9. Governance (1/2)

Min. Score: 5 Max. Points: 10

Subcategory		Criterion
9.1	Certification	Companies holding a SMETA 4 Pillar certification are considered to fulfill all criteria in this category.
9.2	Supply Chain Mapping	The company has a map of suppliers, identifying potential risks and corresponding mitigation measures.
9.3	Traceability	When products are partially sourced from third parties (e.g., smallholder farmers or other companies), these suppliers must comply with all mandatory criteria of this standard. Records of product acquisition must be maintained for at least three years.
9.4	Climate Change Risk Assessment	The company has conducted a climate change risk assessment, evaluating financial impacts and identifying mitigation strategies. <i>Exception: Farm is less than 100 acres/40 hectares and is therefore exempt.</i>
9.5	Legal Land Rights Mandatory	The company holds legal rights (land titles or rental agreements) to conduct its operations.
9.6	Contractors & Subcontractors Mandatory	Contractors and subcontractors must formally declare their compliance with all mandatory criteria specified in this Standard.

Category 9. Governance (2/2)

This section is a continuation of the preceding table.

Subcategory		Criterion
9.7	Impact Assessment	The company has conducted an impact assessment on local communities, considering human rights, health, safety, waste management, and security, over the last three years. <i>Exception: Farm is less than 100 acres/40 hectares and is therefore exempt.</i>
9.8	Local Communities	At least 50% of full-time employees originate from communities within a 100 km range.
9.9	Capacity Building	If the company sources products from smallholders, it implements capacity-building initiatives for smallholders that focus on sustainable production practices such as integrated pest management (IPM) and efficient irrigation practices.

CONTACT US

If you have any feedback or questions regarding this Standard or the auditing process, please don't hesitate to contact the INC at:
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