Sustainable Agriculture Standard SAS NATURAL – TECHNICAL GUIDELINE DOCUMENT

Version 1.1

Issued by: Global Sustainability Impact Foundation

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1. Introduction

The SAS Natural Standard certifies agricultural systems that practice complete elimination of synthetic chemicals and emphasize sustainable, ecological, and regenerative farming methods. The purpose of this standard is to promote practices that protect soil health, biodiversity, and ecological balance while ensuring safe and residue-free food production. SAS Natural serves as a benchmark for farms that transition to sustainable agriculture through natural and biological inputs.

1.1 Objectives

- To eliminate synthetic fertilizers, pesticides, and herbicides from the production process.
- To promote natural, biological, and ecological methods of nutrient and pest management.
- To maintain soil fertility and biodiversity through regenerative practices.
- To ensure safe, chemical-free, and residue-free produce for consumers.

- To build long-term ecological balance through sustainable resource use.

1.2 Definitions

SAS NaturalStandard: A certification program verifying the adoption of sustainable and residue-free farming practices.

Conversion Period: A mandatory duration of three years required for transitioning land from conventional to SAS Natural-compliant production.

Natural Inputs: Inputs derived from plant, animal, or mineral origin that are not chemically synthesized.

Residue-Free Produce: Farm products that test below the detectable limits of any synthetic chemical residue as per CODEX Standards.

Traceability: The ability to track the produce from seed to storage, ensuring transparency in all processes.

Audit: An inspection process that verifies compliance with SAS Natural standards from sowing to harvest.

Lot Creation: The process of grouping and labeling harvested produce for certification and traceability.

Buffer Zone: A designated non-cultivated area or natural barrier separating SAS Natural fields from conventional fields.

Corrective and Preventive Action (CAPA): CAPArefers to the actions taken tocorrect identified non-conformitiesand toprevent their recurrence or occurrencethrough root-cause analysis and improvement measures.

Non-Conformity (NC): A Non-Conformity (NC) is any deviation from the requirements of the SAS Natural Standard, including failures in farming practices, documentation, internal control systems, or traceability rules.

SAS Edge (Digital Compliance Platform): SAS Edge is the official digital platform used for registration, data management, audit documentation, traceability, and compliance monitoring under the SAS Natural Standard.

Compliance: Compliance refers to the fulfilment of all requirements of the SAS Natural Standard, including adherence to production rules, documentation obligations, audit processes, and traceability protocols.

Risk Assessment: Risk Assessment is the process of identifying, evaluating, and categorizing potential risks related to farming practices, input use, documentation, environmental factors, and traceability to determine the level of oversight and audit intensity required.

1.3 Core Principles

Principle	Description
Chemical-Free Production	Complete prohibition of synthetic fertilizers, pesticides, and growth promoters.
Natural Input Use	Encouragement of bio-fertilizers, composts, and botanical pest control methods.
Food Safety	All produce must test

	below detectable residue levels for synthetic substances.
Soil & Biodiversity Health	Farming systems must maintain ecological integrity and fertility.
Traceability & Transparency	Accurate records of input sources and farm practices are mandatory.

2. Conversion PeriodRequirements

Farms transitioning from conventional agricultural systems must undergo a minimum conversion period of three years before being fully certified under the SAS Natural label. This period ensures that the soil, crops, and ecosystem are completely free from synthetic residues and that natural fertility and microbial balance are restored. Scientific studies show that residues of synthetic chemicals may persist in soil and biomass for up to 2–3 years, depending on soil texture, organic matter, and climatic conditions. Therefore, a three-year conversion period is necessary to ensure ecological recovery and the establishment of a biologically active, chemical-free farming system.

2.1 Standard Conversion Period

The standard conversion period for SAS Natural is:

- **Three full cropping seasons (three harvest cycles)** for fields with previous synthetic chemical use.
- **One full season** for fields with minimal chemical-use history.
- **Immediate certification** only for verified chemical-free land (details in 5.5).

During the conversion period, the farmer must follow:

- Zero synthetic chemical use.
- Mandatory use of natural on field prepared inputs.
- Adoption of soil-regenerative practices.
- Recordkeeping requirements.
- Full compliance with SAS Natural audits.

2.2 Purpose of the Conversion Period

The conversion period allows:

- Elimination of synthetic residue presence from soil, water, and crops.
- Restoration of soil biological activity.
- Transition to natural-input, ecological farming methods.

- Establishment of traceability and documentation.
- Consistent monitoring by SAS Natural auditors.
- Ensuring produce meets **residue-free requirements.**

2.3 Conditions during the Conversion Period

During the conversion period, the farmer must comply with the following:

a. Input Use Requirements

- Strict prohibition of synthetic fertilizers, pesticides, herbicides, and growth promoters.
- Mandatory use of natural inputs such as:
  - Jeevamrut, Bijamrut, Ghana Jeevamrut.
  - Vermicompost, compost, cow-based bio-inoculants.
  - Botanical extracts (neem, garlic, and chili).
  - Microbial biofertilizers.
- All farm-made natural formulations must be recorded in the Farm Diary.
- Any suspected chemical input triggers an extension of conversion.

b. Field Monitoring

- Minimum three audits per season:

- Sowing/Establishment Audit
- Mid-Season Management Audit
- Harvest Audit

- Internal inspection every 30–45 days.
- Random soil or residue sampling if risk is high.
- Drift risk assessment from neighboring chemical-using farms.

c. Documentation Requirements

The farmer must maintain:

- Natural Farming Diary (input preparation and all details of field use)
- Input sourcing records (if purchased)
- Soil and water test reports
- Monthly Internal Inspection Records
- Zero-Chemical Declaration

Incomplete documentation will extend or reset the conversion period.

2.4 Reduction or Extension of Conversion Period

a) Reduction of Conversion Period

Conversion period may be reduced when:

- Farmer can demonstrate historical natural/organic practices.

- Soil and residue tests show no detectable residues.
- Water source is clean and uncontaminated.
- No chemical input purchase in last 2 seasons.
- Neighboring drift risk is low.

Minimum conversion after reduction: 1 season

Approval must be granted by the SAS Natural Certification Officer and recorded in SAS Edge.

b) Extension of Conversion Period

The conversion period will be extended if:

- Residue tests show detectable synthetic chemicals.
- Farm Diary shows missing or questionable entries.
- Neighboring drift causes contamination.
- Natural-input practices are not implemented consistently.
- Any major/critical NC is detected.
- Chemical containers or spray equipment are found on the farm.

Extensions may range from:

- 1 additional season**,** or
- Full restart of conversion period**,** depending on severity.

2.5 Certification after Conversion Period

A farmer is certified SAS Natural only if:

- All required audits for both seasons (and adjusted cycle) are completed.
- No synthetic input has been used or detected.
- Soil, water, or residue tests show no detectable residues.
- All NCs are closed through CAPA.
- Natural Farming Diary is fully complete.
- SAS Edge traceability entries are complete.

Upon successful verification, the farmer receives:

- SAS Natural Scope Certificate,
- SAS Natural Transaction Certificate and
- Unique Farmer ID in SAS database

Certification remains valid for one agricultural season, with annual renewal required.

2.6 Special Cases

a) New Land/Land in Initial Conversion

Land with no history of chemical use may qualify for **direct certification** after:

- Field inspection
- Soil and water test

- Farmer declaration
- Verification of natural-input preparation facilities

b) High-Risk Farms

Farms with:

- History of heavy chemical use
- Neighboring high-drift zones
- Contaminated water sources
- Previous residue failures

may require:

- Additional sampling
- Additional audits
- Extended conversion period

c) Transition from SAS Eco to SAS Natural

Farmers previously certified under SAS Eco may require:

- Minimum 1 additional season of chemical-free cultivation
- Soil/residue testing verification
- Full documentation of natural-input use

3. Input and Residue Criteria

The following rules apply for all SAS Natural certified farms:

Category	Requirement
Synthetic Fertilizers & Pesticides	Prohibited – no synthetic chemical input is allowed under SAS Natural.
Permitted Inputs	Compost, Farmyard Manure (FYM), vermicompost, biofertilizers, green manure, neem-based biopesticides, rock phosphate, lime, gypsum.
Prohibited Materials	All synthetic agrochemicals, urea, DAP, MOP, chemical herbicides, GMOs, hormones, synthetic preservatives.
Residue Requirement	Produce must test non-detectable for all synthetic chemicals.
Input Documentation	Farmers must maintain input source and batch record for traceability.

4. Principles and Process of Production

SAS Natural-certified farms must follow natural, regenerative, and residue-free production practices to ensure soil health, biodiversity, and environmental sustainability. The process covers all stages of crop production — from land preparation to post-harvest handling.

4.1 Land Preparation Stage

- Fields must be free from residual synthetic chemicals before certification begins.
- Maintain a buffer zone of 3–5 meters from conventional fields to prevent drift contamination.
- Tillage may be mechanical or animal-drawn; chemical soil sterilizers are prohibited.
- Incorporate compost, FYM, green manure, and biofertilizersto build fertility.
- Conduct soil and water tests to ensure no contamination.
- Plan for cover cropping or intercrops to enhance soil microbial activity and organic matter.

4.2 Crop Sowing / Planting Stage

- Use only untreated, non-GMO seeds adapted to local agro-climatic conditions.
- Seed treatment may use bio-fertilizers or natural extracts (e.g., neem, turmeric).
- Avoid seeds previously exposed to chemical coatings or fungicides.
- Maintain proper sowing depth, spacing, and row alignment for optimal root and crop development.
- Record all seed details in the Natural Farming Diaryand SAS Edge.

4.3 Crop Management Stage

4.3.1 Nutrient Management

- Maintain soil fertility through biological recycling: compost, FYM, crop residues, bio-fertilizers, and mulching.
- Synthetic fertilizers are strictly prohibited**.**
- Liquid organic manures (e.g., Jeevamrut, Beejamrut, Panchagavya) may supplement nutrient needs.
- Use leguminous intercrops and organic matter to enhance soil carbon and nitrogen content**.**
- Monitor nutrient status and adjust natural inputs accordingly.

4.3.2 Pest & Insect Management

- Prioritize preventive ecological practices: crop rotation, mixed cropping, trap crops.
- Permitted inputs: botanical extracts (neem oil, chilli-garlic extract, pongamia oil), biological pest control agents (Bacillus thuringiensis, Trichoderma), pheromone traps.
- Any synthetic pesticide or fungicide use disqualifies the crop from SAS Natural certification.
- Maintain detailed records of all pest management interventions.

4.3.3 Weed Management

- Control weeds through manual, mechanical, or mulching methods**.**
- Use cover cropping and crop rotation to prevent excessive weed growth.
- Synthetic herbicides are prohibited**.**

4.3.4 Disease Management

- Implement preventive strategies such as crop rotation, resistant varieties, and biological control agents.
- Use only natural or biological inputs for disease management.

- Monitor for disease outbreaks and apply non-chemical remedies where necessary.

4.3.5 Irrigation & Water Use

- Prefer rainwater harvesting, drip, or sprinkler systems for efficient water use.
- Irrigation water must be tested to confirm absence of chemical contamination.
- Use of contaminated or industrial wastewater is strictly prohibited.

4.4 Harvest Stage

- Harvest using clean, chemical-free tools and containers.
- Immediately segregate SAS Natural produce to avoid contamination.
- Label all harvested produce clearly with traceable lot numbers.
- Synthetic ripening agents or preservatives are not allowed.
- Ensure personnel handling harvest follow hygiene and traceability protocols.

4.5 Storage Stage

- Storage facilities must be clean, dry, and well-ventilated.
- No synthetic preservatives, ripening agents, or wax coatings are permitted.

- Natural repellents (e.g., neem leaves, camphor) may be used for pest prevention.
- Maintain storage records for traceability and audit verification.
- Segregate SAS Natural produce from conventional produce at all times.

4.6 Land Re-Preparation Stage

- After harvest, incorporate crop residues back into the soil to enhance organic matter.
- Practice crop rotation with legumes or green manure to restore soil fertility.
- Apply compost and biofertilizers during fallow periods.
- Conduct soil testing before initiating the next crop cycle to ensure chemical-free compliance.
- Plan for ecological restoration practices such as cover crops, intercropping, and mulching to maintain biodiversity.

5. Record Keeping and TraceabilityRequirements

Accurate record keeping is essential for demonstrating compliance with SAS Natural standards. All records must be complete, dated, traceable, and available during audits. Traceability must ensure that every crop, input, and lot can be

linked back to a specific farmer, field, and activity recorded on SAS Edge.

5.1 Farm Diary Records

Each farmer must maintain a Farm Diary for every crop season. The diary documents:

- Daily field activities (land prep, sowing, weeding, pest control, irrigation).
- Preparation and application of natural inputs (Jeevamrut, botanical extracts, compost).
- Seed details (source, type, treatment).
- Pest/disease occurrences and actions taken.
- Irrigation dates and water source.
- Harvest details (date, method, and yield).
- Any incidents or deviations.

This diary is the main compliance evidence reviewed during audits.

5.2 Input & Output Records

Farmers must record all inputs and harvested outputs.

Input Records

- Source and batch of purchased natural inputs.

- Preparation details for farm-made inputs.
- Date, quantity, and field of each application
- Zero-chemical declaration and test reports (soil, water, residue).

Output Records

- Harvest date, crop variety, and field number.
- Total quantity harvested.
- Post-harvest handling records (sorting, cleaning, storage).
- Any unusual yield variations.

These ensure transparency and residue-free verification.

5.3 Lot Creation Records

Every harvest batch must be converted into a traceable lot.

- Unique lot number based on farmer ID, field, crop, and harvest date.
- Lot Creation Form recording crop, quantity, date, and storage location.
- Clear labelling and complete segregation of SAS Natural lots.
- Linkage of every lot to Farm Diary, input logs, and harvest records.
- Residue sampling details when required.

Proper lot creation ensures 100% traceability from field to storage.

5.4 SAS Edge Traceability Requirements

SAS Edge is the official digital platform used to store and verify all compliance data.

Mandatory entries include:

- Farmer and field registration with maps.
- Crop and sowing details.
- Input usage logs.
- Audit checklists (sowing, mid-season, harvest, storage).
- Non-conformities and CAPA.
- Lot creation and closing stock details.
- Laboratory test results.
- Certification decisions and renewal status.

SAS Edge ensures digital, tamper-proof, end-to-end traceability for every certified crop.

6. Audit and Verification Protocol

6.1 Audit Stages under SAS Natural

a) Pre-Registration & Baseline Verification

- Verify farm eligibility for SAS Natural certification.
- Collect baseline information on farm size, cropping patterns, soil status, water sources, and historical use of chemicals.
- Review farmer declaration on no use of prohibited chemicals, pesticides, or synthetic fertilizers.
- Document existing soil fertility practices (composting, green manure, bio-fertilizers).
- Ensure understanding of SAS Natural standards by farmer/operator.

b) Sowing / Planting Audit

- Confirm land preparation meets natural principles (no synthetic fertilizers, pesticides, GMOs).
- Verify seed quality, source, and treatment (organic/natural seeds).
- Check documentation of sowing dates, seed rates, and crop rotation plans.
- Inspect neighboring fields for potential contamination risk.

c) Mid-Season Audit

- Monitor ongoing crop management practices: nutrient management, pest and disease control, weed management, water use.

- Confirm use of natural inputs (bio-fertilizers, botanical extracts, neem oil, compost, vermicompost).
- Check field records for any incidents of prohibited chemical use.
- Conduct on-site observations and farmer interviews.

d) Harvest Audit

- Verify crop harvesting practices, timing, and handling to avoid contamination.
- Confirm segregation of SAS Natural produce from conventional produce.
- Collect samples for residue testing (if applicable).
- Record yield, quality, and post-harvest management practices.

e) Storage Audit

- Check storage practices to prevent contamination.
- Ensure proper labeling and traceability for SAS Natural produce.
- Inspect storage facilities for cleanliness and segregation.

6.2 Types of Audits

a) Initial Audit

- Comprehensive verification of farm compliance with SAS Natural standards.
- Full assessment of soil, inputs, crop management, and documentation.

b) Surveillance Audit

- Periodic review (mid-season or annual) to verify continued compliance.
- Focused audit on high-risk areas or new practices.

c) Environmental Impact Verification Audit

- Evaluate farm practices' impact on soil health, water quality, biodiversity, and surrounding ecosystem.
- Include sampling of water, soil, and biodiversity indicators if necessary.

d) Mandatory Annual Cycle Audits

- Full cycle verification of all stages (pre-sowing to harvest).
- Required for maintaining certification.

e) Triggered / Unannounced Audits

- Conducted when complaints, non-conformities, or irregularities are reported.
- Random checks to ensure continuous adherence to SAS Natural standards.

6.3 SAS Edge Software Entries Required for Audits

- Operator registration data.
- Farm map and plot details.
- Input usage logs (seeds, organic fertilizers, biopesticides).
- Crop sowing and harvesting records.
- Audit checklists (pre-filled and verified during inspection).
- Non-conformity reports (NCs) and CAPA tracking.
- Certification decision and status update.

6.4 SAS Natural Audit Process Flow

1. Operator submits SAS Natural application
2. Pre-registration verification
3. Initial Audit (on-site)
4. Mid-season monitoring (if required)
5. Harvest audit and sampling
6. Review of NCs / CAPA
7. Certification decision
8. Surveillance audit (annual)
9. Renewal or withdrawal of certification.

6.5 NC (Non-Conformity) Classification

- **Major NC:** Direct violation of chemical/residue-free practices or use of prohibited substances.
- **Minor NC:** Documentation gaps, minor deviations in process not affecting product safety.
- **Observation:** Suggestive improvements without immediate compliance impact.

6.6 CAPA Requirements (Corrective and Preventive Actions)

- Identify root cause of NC.
- Propose corrective action (immediate fix) and preventive measures (to avoid recurrence).
- Timeline for implementation (generally within 30 days).
- Verification by auditor during next visit or through SAS Edge evidence.

6.7 Certification Decision Rules

- No Major NC: Certification granted.
- Major NC resolved satisfactorily: Conditional certification.
- Unresolved Major NC or repeated NC: Certification denied or suspended.

- Minor NC: Must be corrected before next audit cycle.

6.8 Residue Sampling Protocol

- Conduct sampling at harvest or post-harvest as per SAS Natural sampling plan.
- Minimum 3 samples per hectare, or as per local regulations.
- Test for synthetic pesticides, herbicides, fungicides, heavy metals.
- Samples sent to accredited laboratories.
- Record results in SAS Edge for traceability.

6.9 Verification Requirements

- Cross-check field observations with SAS Edge data.
- Validate input sources and purchase receipts.
- Interview farmer/field workers.
- Confirm separation of SAS Natural produce from non-certified produce.
- Verify storage and post-harvest handling.

6.10 Non-Compliance Handling

- Issue NC report with clear description, type, and risk.
- Set timeline for corrective action.
- Monitor implementation of CAPA.
- If repeated or severe non-compliance occurs, suspend or revoke certification.

6.11 Certification Decision Rules

- **Full Compliance:** Issue SAS Natural Certificate.
- **Conditional Compliance:** Provisional certificate until CAPA implemented.
- **Non-Compliance:** Deny or suspend certification.
- **Audit Follow-up:** Ensure all NCs resolved before next audit cycle.

7. Risk Assessment Framework

Objective: To identify, evaluate, and mitigate potential risks associated with sustainability, compliance, production, and environmental impact within farmer groups.

Scope: Applicable to all farmer groups (25–500 members) under SAS Natural certification.

7.1 Risk Identification

Risks are assessed across five main categories:

1. **Compliance Risks**
   - Non-conformance with SAS Natural standards
   - Missing or inaccurate documentation
2. **Production Risks**
   - Pest, disease, or nutrient deficiencies
   - Irrigation or water management issues
3. **Environmental Risks**
   - Soil degradation, erosion, or contamination
   - Loss of biodiversity
4. **Worker & Health Safety Risks**
   - Exposure to agrochemicals
   - Lack of personal protective equipment (PPE)
5. **Market & Supply Chain Risks**
   - Harvest quality issues
   - Traceability gaps

7.2 Risk Assessment & Scoring

Score Type	Scale
Likelihood	1 (Rare) → 5 (Almost Certain)
Impact	1 (Negligible) → 5 (Critical)

Score Type	Scale
Risk Score	Likelihood × Impact
Risk Level	1–5 Low, 6–12 Medium, 15–25 High

7.3 Risk Mitigation Measures

- High Risk → Immediate corrective actions
- Medium Risk → Preventive measures and monitoring

- Low Risk → Routine checks

Examples of Mitigation Actions:

- Farmer training on input use and safety
- Soil & water testing
- Integrated Pest Management (IPM)
- Traceability and record-keeping updates

7.4 Monitoring& Follow-Up

- Audit frequency based on risk level and group size

Group Size (Farmers)	Standard Sampling % (Minimum)

Group Size (Farmers)	Standard Sampling % (Minimum)
25–100 farmers	**20%** of farmers sampled
101–300 farmers	**15%** of farmers sampled
301–500 farmers	**10%** of farmers sampled

- Document all risks, mitigation actions, and follow-up in **SAS Edge.**

7.5Documentation Requirements

a. Group Risk Register

Contains consolidated risk identification, scoring, and mitigation plans for the entire farmer group.

b. Individual Farmer Risk Logs

Mandatory for all high-risk farmers and those requiring corrective monitoring.

c. Audit Trail in SAS Edge

- Entry of risk scores
- Sampling selection rationale
- Mitigation actions
- Corrective action closure

8. SAS Natural Label Use

The SAS Natural label may only be applied to produce that fully meets certification requirements and passes all compliance checks. The label signifies that the product is free from synthetic chemicals, traceable, and produced under approved SAS Natural standards.

8.1 Conditions for Label Use

The SAS Natural label may be used only when:

1. **Certification is Approved**
   - The farmer/operator has received a valid SAS Natural Certificate for the current season.
2. **Lot Approval is Granted**
   - Produce must belong to a certified and verified lot created in SAS Edge.
   - Only the quantities recorded and approved as SAS Natural may carry the label.
3. **Traceability is Complete**
   - Each labeled unit must link to a unique lot number and farmer/operator ID.
   - Complete records must be available for all stages from field to storage.

4. **Segregation is Maintained**
    - SAS Natural produce must be stored separately from conventional or SAS Eco produce.
5. **No Chemical Residues Detected**
    - Produce must be residue-free as per test results or risk-based sampling plans.

8.2 Suspension Rules

Label use may be suspended immediately if:

1. **Detection of Synthetic Chemical Residues**
    - Any lot testing positive for synthetic pesticide or chemical residues must be de-labeled.
2. **Major Non-Conformities (NCs)**
    - Use of prohibited inputs
    - Inaccurate or incomplete records
    - False documentation or misrepresentation
3. **Traceability Breaks**
    - Inability to trace produce to its field, farmer, or lot.
4. **Non-Segregation of Produce**
    - Mixing or contamination with non-certified or conventional produce.
5. **Repeated Violations**
    - Recurring NCs or non-cooperation during audits.

Suspension remains until corrective actions and CAPA are verified and approved by SAS.

8.3 Compliance Requirements

To maintain label authorization, operators must:

1. **Follow all SAS Natural Standards**
   - Zero synthetic input usage.
   - Full adherence to natural farming practices.
2. **Maintain Accurate Records**
   - Updated Farm Diary, input logs, and lot creation documents.
   - All records must match data uploaded on SAS Edge.
3. **Ensure Full Traceability**
   - From seed to storage, every activity must be trackable.
4. **Maintain Storage Hygiene and Segregation**
   - Clear labeling and separation of certified produce.
5. **Cooperate During Audits**
   - Provide access to fields, storage, records, and staff.
   - Close all NCs within prescribed timelines.
6. **Follow Label Design & Usage Rules**

- Only approved label designs and formats may be used.
- No promotional misuse or unauthorized reproduction of the label.

Annexures

Annexure I: Laboratory Test Report Format

This format shall be used by SAS-accredited laboratories for analysis of soil, water, and produce samples under SAS Natural certification.

Parameter	**Unit**	**Permissible Limit (as per FSSAI/Codex)**
pH	-	6.0 – 8.0
Organic Carbon	%	≥ 0.5
Electrical Conductivity	dS/m	< 2.0
Lead (Pb)	mg/kg	≤ 0.3
Cadmium (Cd)	mg/kg	≤ 0.1
Arsenic (As)	mg/kg	≤ 0.2
Mercury (Hg)	mg/kg	≤ 0.01
Pesticide Residues	mg/kg	Non-detectable

Annexure II: Farm Diary Format

Farmers must maintain this diary to record all farm activities for each crop season under SAS Natural.

Date	Activity Description	Input Used (if any)	Quantity / Area	Remarks

Annexure III: Audit Checklist (Sowing & Harvest)

Auditors must complete this checklist during field inspections to verify compliance with SAS Natural standards.

Checklist Item	Observation	Compliance (Yes/No)
Field boundary and buffer zones verified		
No synthetic inputs observed or reported		
All inputs listed and verified as natural sources		
Farm diary maintained and up to date		
Residue samples collected and labeled correctly		
Storage area clean and chemical-free		

Annexure IV: Lot Creation and Closing Stock Form

This form is used to record and verify produce lots under SAS Natural, prior to certification or marketing approval.

Lot No.	Crop / Variety	Quantity (kg)	Audit / CB Approval Signature

Annexure V: Input List (Permitted / Prohibited)

This table provides classification of agricultural inputs according to SAS Natural standards.

Input Category	Examples	Status (Permitted / Prohibited)
Bio-fertilizers	Rhizobium, Azotobacter, Phosphate Solubilizing Bacteria	Permitted
Organic Manures	Compost, FYM, Vermicompost, Green Manure	Permitted
Botanical Extracts	Neem oil, Garlic extract, Chilli-garlic spray	Permitted
Mineral Inputs	Lime, Gypsum, Rock Phosphate	Permitted
Synthetic Fertilizers	Urea, DAP, MOP	Prohibited
Synthetic Pesticides	Organophosphates, Carbamates, Neonicotinoids	Prohibited
GMO Seeds	Genetically Modified Cotton, Soybean	Prohibited

Synthetic Growth Regulators	NAA, 2,4-D, CCC	Prohibited

Annexure VI: SAS Natural – Risk Assessment

S. No.	Risk Category	Description of Risk	Likelihood (1–5)	Impact (1–5)	Risk Score (L×I)	Risk Level	Mitigation Action	Follow-up / Status
1	Compliance	Non-conformance with SAS Natural standards / Missing documentation					Training, record update	
2	Production	Pest or disease outbreak, nutrient deficiency					IPM, soil & crop monitoring	
3	Environmental	Soil degradation, erosion, water contamination					Mulching, contour farming, water management	
4	Worker Safety	Lack of PPE, exposure to agrochemicals					PPE provision, safety training	
5	Market / Supply Chain	Late harvest, poor quality, traceability gaps					Schedule harvest, storage, record maintenance	