# Triple S™ (Sustainably Sourced and Supplied) Soy:

Guidance setting out the requirements for farms participating in the Triple S™ program, together with the traceability and verification requirements of Triple S products in the supply chain.

**February 2021**

*[Version 7.0] – Soy, [South America to Destination markets.]*



Cargill

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# Introduction

The supply chain reach and global presence of Cargill provides the opportunity to bring about an increase in on-farm sustainability practices with a fully traceable supply chain. Where Cargill sources products directly from farms, transports and processes these products, we are able to place soy products on the market that are certified ***S**ustainably **S**ourced and **S**upplied* – our **Triple S**™ product range.

This document contains the core principles and criteria which must be met by participating farms and all Cargill businesses participating in the sourcing, processing and supply of Triple S Soy products. In addition to complying with this document, the scheme will ensure compliance with all related national and state regulations in force in the regions where the farms operate.

The Triple S Soy certification scheme has been developed to support more mainstream farmers in the Cargill supply chain to grow more sustainable soy. Triple S takes key sustainability criteria and splits them into musts and continuous improvement actions. Over time, participating growers are able to advance towards higher production standards which in turn helps further a thriving market for sustainably certified soy.

Triple S is a certification scheme with no deforestation and no conversion of native habitat, using January 2008[1] as the baseline date. This applies across the Triple S Soy program in all regions of Brazil, Argentina and Paraguay. The January 2008 baseline precedes the Amazon Soy Moratorium reference date of 22 July 2008[2] and applies equally to all regions and countries.

[1] When Triple S Soy began in 2010, the best option for defining a landuse baseline date for habitat conversion was within the European Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 (Renewable Energy Directive). January 2008 remains the reference for the baseline date within Triple S Soy. It predates the reference of the Amazon Soy Moratorium (22 July 2008) and applies to all Triple S farms.

[2] The Soy Moratorium was implemented on 24th July 2006; however, when the Forest Code was approved in 2012, the reference date was changed to 22nd July 2008. The Moratorium's governance and operation are the responsibility of the Soy Working Group (GTS), formed by the member companies of ABIOVE and ANEC, and by civil society organizations.

# 1. Program overview

## 1.1. Cargill commitment to sustainability

As a leading purchaser, processor and transporter of soybeans in major supply chains around the world, Cargill is committed to sustainable soy production, including protection of sensitive environments, reduction of greenhouse gas emissions and promotion of responsible working conditions. Cargill's role in the soy supply chain comes with significant responsibility, and we are keenly aware of the need to deliver customer solutions in a safe, responsible and sustainable way. We have worked together with trusted advisors and local stakeholders to develop a *Policy on Sustainable Soy - South America Origins*, which captures our commitment to a transparent and sustainable South American soy supply chain.

In summary:
- Cargill will transform our supply chain to be deforestation free while protecting native vegetation;
- Cargill will promote responsible production, which benefits farmers and surrounding communities;
- Cargill respect and uphold the rights of workers, indigenous peoples and communities;
- Cargill will uphold high standards of transparency through reporting of key metrics, progress and grievances.

We work with soy growers at all levels of production to help them achieve commercial success while growing crops more sustainably.

We support practical efforts to establish and improve sustainable soy production. Our Triple S soy products are intended to develop a positive program with farmers to grow more sustainably and deliver sustainable soy to the market.

## 1.2. The Triple S 5 key areas

Cargill Triple S™ products are based on five key areas relating to the production (growing) and processing of soy beans. These areas have been selected to represent the key sustainability concerns related to soy production, in South America, namely:

1. **Sustainable land use**
2. **Good agricultural practice**
3. **Community relations and human rights**
4. **Engagement in a process of continuous improvement**
5. **Measuring greenhouse gas emissions**

Furthermore, the key aspects of Triple S soy qualified farms are as follows:

1. The baseline date for land use change is January 2008. This means that soy planted areas where deforestation or conversion of highly biodiverse ecosystems has taken place after January 2008 are excluded from Triple S certification. The entire land (agricultural land, pasture, forest, any other land) of a production unit, any owned, leased or rented land, is subject to certification.
   The land use analysis is based on satellite imagery undertaken each year by a third-party specialist (Ciampagna). Please see annex for examples.
2. Triple S soy can only be grown by farmers who comply with national and local regulations, and undergo independent diagnostics and are assessed by the implementation partner and considered to meet the mandatory criteria set out in this document; and have a good level of infrastructure and current practices;
3. The farm activities must be assessed and considered to pose no immediate concerns regarding worker welfare or environmental risk to land, water or air;

4. Triple S soy can only be grown on farm production units participating and implementing continuous improvement action plans based on individual production unit diagnostics, with farm specific improvements measured against short or medium term action steps;
5. Triple S farmers must provide actual farm cultivation data on inputs, agronomy practices to be combined with data on transport modes and soybean processing to measure greenhouse gas emissions.

## 1.3. The Triple S Soy program principles & criteria

This document explains the *Principles & Criteria of Triple S™* soy products.

**i. Cargill Triple S Soy program description:**

– *Farm Level requirements – at individual unit of production*:
This document provides details of the criteria to be met by the farmer growing Triple S soy beans on an individual unit of production, with regards to the 5 core areas: Sustainable land use, Good agricultural practice, Community relations and worker welfare, Engagement in a process of continuous improvement, Measuring greenhouse gas emissions (incl. the methodology followed for determining the Greenhouse Gas emissions along the entire supply chain).

– *Quality management system*:
This document explains how the Triple S management system is handled and documented.

**ii. Chain of custody and traceability**

The chain of custody for soy beans entering the supply chain and soy bean products flowing through the supply chain is single site-level Mass Balance as defined by ISEAL Alliance Chain of Custody models and definitions, starting at the first collecting point from the farm and ending at the last processing step. It is administered by Cargill in a Mass Balance database and third-party verified to ensure the physical flow of Triple S certified products is evidenced and verifiable.

Traceability refers to the ability to follow a product or its components through stages of the supply chain (e.g. production, processing, manufacturing, and distribution).

This document describes how the singe site-level mass balance chain of custody is implemented and how the traceability of all soy products is ensured.

**iii. Certification**

This document describes the methodology to be implemented by independent certification bodies appointed to verify that the farms enrolled in the program are participating fully and that the farms are being visited and assessed by the independent implementation partner. And beyond the farms, the chain of custody rules are applied at each step of the Cargill supply chain; receiving soy beans, storing, processing and transporting soy products.

## 1.4. The mass balance chain of custody

Cargill Triple S products follow a traceable and third party verified single site-level Mass Balance chain of custody. This means the quantity of product sold shall be equal to, or less than, the quantity of Triple S product entering the supply chain. To qualify, the Triple S quantity must be physically purchased and received into Cargill's inland silo network directly from the qualified farms.

Triple S soy beans can be physically mixed with non-certified beans but the same quantity of beans needs to be transported through the physical supply chain to carry the Mass Balance quantity from one step in the supply chain to the next. Site-level Mass Balance is demonstrated with all commercial

transactions traceable from the farm and then following all transport movements throughout the entire supply chain, including export and processing.

There are no limitations on the farmer to sell soy beans to Cargill; therefore, many of the soy beans end up sold to other buyers as standard non-certified soy beans without continuing to carry the Triple S™ status. This whole soy bean quantity would have been included if Triple S had adopted an Area Mass Balance chain of custody, but instead Triple S is designed to provide full traceability through Site-level Mass Balance.

# 2. Cargill Triple S Soy program description

## 2.1. Farm-level requirements

Farms supplying soy beans under the Triple S™ program must meet all of the following criteria, at an individual unit of production.

Participating farmers must agree to receive an independent agronomy implementation partner onto their farm and participate in third party audits to verify their compliance. The implementation partners are experts in agronomy and sustainable agricultural practices with specialist knowledge of the rules, laws and regulations that farmers are required to follow in their region. The initial diagnostic will ensure that all Triple S farmers comply with all national and specific local regulations.

The implementation partners are independent of Cargill and the farmer but are appointed and paid for by Cargill. The Triple S scheme does not impose any fees or costs of participation on the farmer.

Country-specific appointed implementation partners are:
- Argentina: Aapresid, https://www.aapresid.org.ar/
- Brazil: Instituto BioSistêmico (IBS), https://www.biosistemico.org.br/en/
- Paraguay: Solidaridad, https://www.solidaridadnetwork.org/regions/south-america

Each farmer supplier participating in the Triple S program can receive informational, educational and helpful materials covering good farm practices as well as worker health and safety.

### 2.1.1. Sustainable land use

| **1** | **Sustainable land use** |
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| **1.2** | **Land title** |
| 1.2.1 | Soy beans entering the Triple S program must only be purchased from farmers who are able to demonstrate legal title to their land or, where this is not yet possible due to issues of State or National Government administration, able to demonstrate proactive efforts to establish legal title . In this circumstance evidence must be shown to demonstrate a formal application for title has been made and confirmation that a ruling is still awaited and had not been determined. |
| 1.2.2 | There is documented evidence of rights to use the land (e.g. ownership document, rental agreement, court order etc.). |
| 1.2.3 | Where rights have been relinquished by traditional land users, there is documented evidence that the affected communities were compensated subject to their free, prior, informed and documented consent. |
| 1.2.4 | There has been no conversion of land where there is an unresolved land use claim by traditional land users under litigation, without the agreement of both parties. |
| **1.4** | **Land conversion or deforestation** |
| 1.4.1 | Triple S soy beans cannot be produced on land with *high biodiversity value** converted after January 2008, regardless of whether the land continues to have that status. |
| 1.4.2 | Triple S soy beans cannot be produced on land that had the status of *natural highly biodiverse grassland** in or after January 2008 regardless of whether the land continues to have that status. |
| 1.4.3 | Triple S soy beans cannot be obtained from land that had the status of *non-natural highly biodiverse grassland** in or after January 2008, regardless of whether the land continues to have that status. |

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| 1.4.4 | Triple S™ soy beans cannot be produced on land that had the status of *high carbon stock* in or after January 2008 regardless of whether the land continues to have that status. |
| 1.4.5 | Triple S soy beans cannot be produced on land that had the status of *continuously forested areas** in or after January 2008 regardless of whether the land continues to have that status. |
| 1.4.6 | Triple S soy beans cannot be produced on land that had the status of *sparsely forested areas**. |

*** Definitions:**

Land with *High biodiversity value* is defined as:

**1.** Primary forests and other wooded land

*Primary forests and other wooded land* are areas covered with native tree species where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed.

Tree species are defined as native, if they grow within their natural geographical range and under climatic conditions to which they have adapted naturally and without human interference. Therefore, primary forests and other wooded land consists of tree species that have not been introduced by humans or that, nevertheless would occur nonetheless in the area, e.g. due to the climatic conditions of the region.

Clear visible indication of human activity could be, for instance, land management (i.e. wood harvesting, forest clearance, land use change), heavy fragmentation through infrastructural constructions or disturbances to the natural biodiversity (e.g. significant occurrence of non-native plant or animal species). Activities of indigenous people or other humans managing the land in a traditional way do not count as clearly visible indications of human activity if they manage the forest on a subsistence level and their influence on the forested area is minimal (e.g. the collection of wood and non-timber products, the felling of a few trees as well as small-scale forest clearance according to traditional management systems).

**2.** Areas designated by law or by the relevant competent authority for nature protection purposes.

**3.** Areas for the protection of rare, threatened or endangered ecosystems or species areas for the protection of rare, threatened or endangered ecosystems or species include areas that are recognized by international agreements or included in lists drawn up by intergovernmental organizations or the International Union for the Conservation of Nature (IUCN).

**4.** Natural and non-natural highly biodiverse grassland

"*Grassland*" means terrestrial ecosystems dominated by herbaceous or shrub vegetation for at least five years continuously. It includes meadows or pasture that is cropped for hay but excludes land cultivated for other crop production and cropland lying temporarily fallow. It further excludes continuously forested areas unless these are agroforestry systems, which include land-use systems where trees are managed together with crops or animal production systems in agricultural settings. The dominance of herbaceous or shrub vegetation means that their combined ground cover is larger than the canopy cover of trees.

"*Natural highly biodiverse grassland*" and "*non-natural highly biodiverse grassland*" are distinguished:

**a)** "*Natural highly biodiverse grassland*" means grassland that:
   i. Would remain in the absence of human intervention; and
   ii. Maintains the naturals species composition and ecological characteristics and processes.

**b)** "*Non-natural highly biodiverse grassland*" means grassland that:

i. Would cease to be grassland in the absence of human intervention; and
ii. Is not degraded, that is to say it is not characterized by long-term loss of biodiversity due to for instance overgrazing, mechanical damage to the vegetation, soil erosion or loss of soil quality; and
iii. Is species-rich, meaning it is:
   – A habitat of significant importance for critically endangered, endangered or vulnerable species as classified by the International Union for the Conservation of Nature Red List of Threatened Species or other lists with a similar purpose for species or habitats laid down in national legislation or recognized by a competent national authority in the country of origin of the raw material; or
   – A habitat of significant importance to endemic or restricted-range species; or
   – A habitat of significant importance to intra-species genetic diversity; or
   – A habitat of significant importance to globally significant concentrations of migratory species or congregatory species; or
   – A regionally or nationally significant or highly threatened or unique ecosystem.

**c)** In the above, "Human intervention" means managed grazing, mowing, cutting, harvesting or burning.

Land which is *suitable for soy production and has the status of high carbon stock* include "*Continuously forested areas*" and "*Sparsely forested areas*":

**1.** "*Continuously forested areas*" refers to land spanning span over more than one hectare with trees higher than five metres and a canopy cover of more than 30%, or trees able to reach those thresholds in situ. This criterion includes forests according to the respective national legal definition but excludes land that is predominantly under agricultural land use.

The canopy cover is the degree of the coverage of an area by tree crowns of a storey. The coverage of a tree equals the size of its crown. The crown size can be estimated or measured. For the determination of the canopy cover of a forest as a percentage the vertical projection of all tree crowns must be used.

The status of forest areas includes all stages of development and age. Thus, it is quite possible for the canopy cover to temporarily fall below 30 %, e.g. after a tree harvest or a natural hazard (e.g. windfall). Such incidents do, however, not change the status of the area as a forested area as long as reforestation or natural succession is ensured within a justifiable time.

Forested areas are to be judged as an entity, no matter how much lies within the production area. As such, the whole area is the basis for the calculation of the threshold values of 30%. If the total area of the forested area exceeds 1 ha and is stocked with trees higher than 5 metres, the area and each part of it that lies within the production area is termed a forested area. Even if only 0.5 ha of the continuously forested area lie within the production area, these 0.5 ha must be classified as a forested area.

No conversion of continuously forested areas is allowed, even if this is allowed by national regulation. The provisions of this paragraph shall not apply if, at the time the raw material was obtained, the land had the same status it had in January 2008. Thus, raw material can be obtained from continuously forested areas as long as the status is not changed or compromised and all applicable constraints are followed.

**2.** "*Sparsely forested areas*" refers to land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10% and 30%, or trees able to reach these thresholds in time.

## 2.1.2. Good agricultural practice

| 2 | **Good agricultural practice** |
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| **2.1** | **Cultivation procedures** |
| | Soybean producers must adhere to the procedures established in the Cargill soybeans purchase-sale contract for the cultivation of merchandise. |
| | Cargill has robust procedures to ensure we are compliant with social and environmental restrictions e.g. related to Slave Labor, Soy Moratorium, Green Grain Protocol and Embargoes (from federal and state agencies). Every day, our ERP system consults government lists of embargoed farms and blocks them, so they are not eligible to sell product to us. In addition, the system also consults lists of non-compliant farms based on the Amazon Soy Moratorium and the Green Grain Protocol. When a farm is blocked in our system for being on one of these lists, we also block other farms registered to the same individual or legal entity, both in the local area or in the entire country, depending on the violation involved. These affiliated farms are only unblocked once we have conducted an internal analysis to ensure that product from the violating farm is not being rerouted and sold to us through an affiliated operation. |
| **2.2** | **Origin of seeds** |
| | Origin of seeds must be controlled to improve production and prevent introduction of new diseases.<br>All purchased seed must come from known, legal, quality sources.<br>Self-propagated seeds may be used, provided appropriate seed production norms are followed and legal requirements regarding property rights are met. |
| **2.3** | **Agrochemicals** |
| 2.3.1 | *Approved Agrochemicals*<br>Only agrochemicals which are approved by the relevant Agriculture, Health & Environment Ministries may be used for the cultivation of the soybeans; these are to be used in the form, dose and rest periods as recommended by the above bodies.<br>The use of agrochemicals listed in the Stockholm and Rotterdam Conventions are prohibited, with the exception of those chemicals currently being phased out in accordance with the terms of the relevant Governments ratification of those conventions.<br>Evidence must be provided that chemical/agrochemical applications are handled, stored, collected and chemical waste disposed, in compliance with good practice. |
| 2.3.2 | *Records*<br>There must be records of the use of agrochemicals, including:<br>a) Details of products purchased and applied, including quantities and dates<br>b) Identification of the area(s) where the applications were made and that there is no application of pesticides within 30 meters (or more when as such prescribed in applicable legislation) of any populated area or water body and all necessary precautions are taken to avoid people entering into recently sprayed areas. |
| 2.3.3 | *Agrochemical use*<br>Agrochemicals shall be applied using methods that minimize harm to<br>human health, wildlife, plant biodiversity, and water and air quality.<br>Use of phytosanitary products follows legal requirements (or professional recommendations) in the country of origin and adequate measures to prevent resistance should be taken. |
| 2.3.4 | *Agrochemical storage and disposal*<br>Containers must be properly stored, washed and disposed of. Waste and residual agrochemicals must be contained and disposed in an environmentally responsible way. |

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| 2.3.5 | *Aerial application of agrochemicals*<br>This must be done in such a way that it does not have an adverse impact on occupied houses, offices or other inhabited buildings (whether temporary or permanent). All aerial applications must be preceded by advance notification to residents within 1km of the planned application. There is no aerial application of pesticides in WHO Class 1a, 1b and 2 within 500 m (or more when as such prescribed in national legislation) of populated areas or water bodies. |
| **2.4** | **Waste and water** |
| 2.4.1 | *Storage and Disposal*<br>There is adequate storage and disposal of fuel, batteries, tires, lubricants, sewage and other waste in accordance with applicable legislation. |
| 2.4.2 | *Crop Residues*<br>Unless there is a legal obligation to do so, crop residues must not be burnt in the field but integrated into the soil or removed from the field if there is risk of disease and disposed of in the most suitable sustainable manner (e.g. composted or burnt as a fuel). |
| 2.4.3 | *Water*<br>Freshwater use must be managed to ensure water sources are sustainable and water pollution is prevented.<br>Annual water extraction must not exceed long-term recharge rates, or the maximum extraction rate defined by applicable regulations, whichever provides the higher level of protection.<br>Good agricultural practices are implemented to minimize diffuse and localized impacts on surface and ground water quality from chemical residues, fertilizers and erosion or other sources.<br>Any direct evidence of localized contamination of ground or surface water is reported to and monitored in collaboration with local authorities.<br>When irrigation is used, relevant legislation is being complied with and measures are taken to minimize water use. |
| 2.4.5 | *Soil*<br>Soil must be actively managed to ensure its long-term health. This will include measures to avoid compaction, soil erosion, where this is an identified risk, as well as the maintenance of soil health.<br>Examples of active management can include: precision farming, residue management, crop rotation, no tillage, reduced tillage, nitrogen-fixing plants, compost, cover crops, catch crops, placing wind breaks and the use of agro-forestry techniques. |

## 2.1.3. Community relations and human rights

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| **3** | **Community relations and human rights** |
| **3.1** | **Protection of community relations** |
| 3.1.1 | A mechanism for resolving complaints and grievances is implemented and is available to any concerned parties including but not limited to local communities and traditional land users.<br>Complaints are dealt with through Cargill's formal grievance process, details of which are available publicly on Cargill.com and in our Supplier Code of Conduct. Anyone with concerns is encouraged to contact Cargill through the Ethics Open Line. Documented evidence of complaints and grievances received is recorded and maintained. |

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| 3.1.2 | In case a relevant competent authority requires the farmer to react to a complaint or grievance, the farmer will do so in a timely manner.<br><br>Where appropriate our implementation partner for that country will provide support to the farmer to understand how to close the complaint. Failure to close the complaint in a timely manner may result in the farmer being removed from the Triple S™ program. |
| **3.2** | **Compliance with national and state regulations on worker welfare** |
| | Participating farms must comply with all national and state regulations relating to Worker Welfare, Child Labor, and working conditions that characterize Forced Labor or Slavery. |
| **3.3** | **Child Labor** |
| | No children below the age of 15 shall be employed except:<br>- On family farms and where this does not interfere with their educational and physical development. In such cases the workday, inclusive of school and transport time, must not exceed 10 hours and only light work is allowable. |
| **3.4** | **Young workers (aged 15-17)** |
| | The work carried out by young workers aged 15-17 must not jeopardize their educational and physical development. |
| **3.5** | **Forced labor** |
| | - Participating farms must not engage in or support forced labor, including bonded or indentured labor (as defined by ILO conventions 29 and 105).<br>- Personnel must be free to leave their workplace after their hours of work have been completed and be free to terminate their employment provided that they give reasonable notice.<br>- Spouses and children of contracted workers will not be obliged to work on the farm<br><br>No part of workers' salary, benefits, property, or documents shall be retained in order to force workers to remain on the farm.<br><br>No form of physical or psychological measure shall be utilized requiring workers to remain employed on the farm.<br><br>No workers of any type are required to lodge their identity papers with anyone and no part of their salary, benefits or property is retained, by the owner or any 3rd party, unless permitted by law. |
| **3.6** | **Protecting worker welfare** |
| | The production of soy beans and the subsequent processing of soy products must not adversely affect workers' rights |
| **3.7** | **Contracts of employment** |
| | Where required by the law of the country of origin, participating farms must supply workers with a contract of employment in which key aspects of their rights are encompassed, whether directly contracted or subcontracted. |

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| **3.8** | **Health & safety** |
| | Participating farms must meet the basic requirements of all workers to ensure they are properly trained, that health and safety hazards are minimized, and that they have access to safe drinking water, basic sanitary facilities, suitable safety equipment and medical care.<br><br>Potentially hazardous tasks are only carried out by capable and competent adults who do not face specific health risks.<br><br>Adequate and appropriate protective equipment and clothing is provided and used in all potentially hazardous operations, such as pesticide handling and application and mechanized or manual operations. |
| **3.9** | **Accommodation** |
| | Accommodation must be clean, safe, meet the basic needs of the workers and conform to the country's laws. Workers must have access to clean drinking and washing water close to where they work and live. |
| 3.9.1 | As a minimum, accommodation must provide the following:<br>– Hygienic toilet facilities<br>– Clean and safe dormitories or rooms<br>– Adequate heat or ventilation<br>– A reasonable quantity of privacy and personal space |
| 3.9.2 | Farmers should not charge workers for the accommodation they provide.<br><br>If an accommodation fee is charged, it must be at or below real market value and not interfere with the workers' ability to meet their basic needs and have a decent income. |
| **3.10** | **Wages** |
| | Workers must be paid wages at least equivalent to the legal national minimum wage or the relevant industry/market standard rate, whichever is higher.<br><br>Wages of all workers must be paid regularly and, as a minimum, in accordance with the country's laws.<br><br>Workers must not work under bond, debt or threat and must receive wages directly from the employer.<br><br>Workers must be free to leave their employment at any time with reasonable notice and without loss of payment to which they are entitled.<br><br>Workers must not be required to make financial deposits with employers.<br><br>Wages or income for work done must not be withheld beyond the legal and agreed payment conditions. |
| **3.11** | **Working hours** |
| | Working hours must be in compliance with the country's laws or any applicable collective agreement. Excluding overtime, work hours should not exceed on a regular basis 48 hours per week.<br><br>Workers must be entitled to an uninterrupted weekly rest period comprising not less than 24 hours in the course of each period of seven days.<br><br>Overtime work hours must be voluntary and overtime wages must be paid at a premium, as required by the country's laws or by any applicable collective agreement.<br><br>There is monitoring in place of working hours and overtime.<br><br>Unless collective bargaining agreements specifically state otherwise, overtime periods should be limited and typically required only in times of peak activity (e.g., harvest). The average hours worked in any such peak period should not exceed 60 hours per week in any two-month period. |

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| **3.12** | **Benefits and holidays** |
| | All workers must be provided with the benefits, holidays and leave to which they are entitled by the country's laws or any applicable collective agreement |
| **3.13** | **Discrimination** |
| | There must be no discrimination (distinction, exclusion, or preference) practiced that denies or impairs equal opportunity, conditions, or treatment based on race, gender, political affiliation, marital status, religion or other individual characteristics not directly relevant to the ability to undertake assigned tasks. |
| **3.14** | **Fair treatment** |
| | There must be no harassment, discrimination, physical or mental punishment, or any other forms of abuse. For the avoidance of doubt, specifically:<br>There must be no physical abuse, threat of physical abuse or physical contact with the intent to injure or intimidate.<br>There must be no sexual abuse or harassment.<br>There must be no verbal abuse or harassment |
| **3.15** | **Freedom of association** |
| | Farmers must not interfere with their workers' right to freedom of association and workers must be free to join or form organizations and unions of their own choosing and to bargain collectively.<br>Worker representatives must not be discriminated against and must have access to carry out their representative functions in the workplace. |

## 2.1.4. Engaging in a process of continuous improvement

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| **4.0** | **Engagement in a process of continuous Improvement** |
| | Cargill does not have any direct control over supplying farms but through the implementation of the Triple S™ program is able to promote and actively advance increasing sustainability.<br>Provided the farmer is in compliance with the Triple S farm-level requirements described in this document, non-conformance of any points under the continuous improvement requirements will not result in exclusion from the Triple S program.<br>However, farmers that do not actively engage in the continuous improvement action plans will be given 2 opportunities, with further support from the implementation partner to continue to engage in the program or be excluded from the Triple S program.<br>To build a more sustainable supply chain Triple S™ farmers will focus on the criteria detailed below as main priorities. |
| **4.1** | **Human rights** |
| | The production of soy beans and the subsequent processing of soy products must not adversely affect workers' rights. |
| **4.2** | **Health & safety** |
| | Producers and their workers must demonstrate an awareness and understanding of health and safety matters. Relevant health and safety risks are identified, procedures are developed to address these risks by employers, and these are monitored. |
| 4.2.1 | Adequate and appropriate training and comprehensible instructions on fundamental rights at work, health and safety, and any necessary guidance or supervision are provided to all workers at least annually. |

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| | There is a system of warnings followed by legally-permitted sanctions for workers that do not apply safety requirements. |
| 4.2.2 | In addition to the basic health and safety criteria covered in section 2.8.7 of this document, additional areas to be considered to ensure the well-being of workers include, but are not limited to, the following:<br>– Operating moving vehicles (e.g., tractors) or machinery with moving parts<br>– Using sharp tools<br>– Handling and applying agrochemicals or fertilizers<br>– Persons under the age of 18, pregnant women, and nursing mothers must not handle or apply agrochemicals.<br>– Carrying heavy loads<br>– Working at heights<br>– Working long hours that interfere with health and well-being<br>– Working in extreme temperature<br>– Working in areas that are dusty<br>– Working in areas including on machinery platforms that are poorly lit |
| 4.2.3 | Producers and their workers demonstrate awareness and understanding of health and safety matters.<br><br>Relevant health and safety risks are identified, procedures are developed to address these risks by employers, and these are monitored. |
| **4.3** | **Biodiversity** |
| | Important on-farm biodiversity should be maintained and safeguarded through the preservation of native vegetation. There must be a map of the farm which shows the native vegetation and there must be a plan to protect and recover native vegetation.<br><br>Areas of natural vegetation around bodies of water and on steep slopes and hills and other sensitive parts of the ecosystem must be maintained or restored. |
| 4.3.1 | *Water*<br><br>There must be monitoring, appropriate to scale, to demonstrate that practices to protect water quality are effective. |
| 4.3.2 | *Soil*<br><br>There must be monitoring, appropriate to scale, to demonstrate that practices to protect soil quality and prevent soil erosion are effective. |
| **4.4** | **Integrated Pest Management (IPM)** |
| | Wherever practical, the methods and techniques of IPM must be implemented to reduce the application of pesticides. These include, but are not necessarily restricted to:<br>– Crop rotation<br>– Destruction of crop residues<br>– Establishing the economic thresholds for application of pesticides<br>– The use of attractant and repellent plants and pheromone traps<br>– The promotion of native predators and parasites that will control pest species<br>– The scouting and monitoring for pests and diseases<br>– The consideration of the presence of natural predators of crop pests when establishing whether chemical application is necessary<br>– The use of low-toxicity and precisely targeted chemicals, wherever possible |
| **4.5** | **Waste** |
| | Measures must be taken to reduce, reuse or recycle waste as much as possible. |

## 2.1.5. Measuring Greenhouse Gas (GHG) emissions

| 5.0 | **Measuring Greenhouse Gas (GHG) Emissions** |
|---|---|
| **5.1** | **GHG emissions of cultivation** |
| | A record of inputs and practices should be maintained at farm level.<br>Each farm should record:<br>– Seeding rate & weed variety<br>– Yield & moisture content of harvested beans<br>– Fertilizer type<br>– Fertilizer quantity (N, P) applied /hectare of soy<br>– Lime quantity applied<br>– Area irrigated<br>– Application of pesticide, herbicide, fungicide to include active ingredients and quantity applied<br>– Crop residue management<br>– Tillage practice<br>– Fuel use throughout growing period |
| **5.2** | **This data should be collected by the implementation partner in order to make a $kgCO_2eq/MT$ calculation for the crop** |
| | The calculation will be verified during the audit process. |
| **5.3** | **GHG emissions for transport** |
| | Cargill will collect data regarding transportation legs, including:<br>– km transported by truck<br>– km transported by barge<br>– km transported by ocean bulk carrier |
| **5.4** | **GHG emissions for processing** |
| | The processing GHG calculations are used from the facilities that are additionally certified under 2BSvs or ISCC EU. This is using an energetic allocation between the processed products. If customers of Triple S™ require an economic allocation this can be completed on request. |

### GHG Calculation Methodology

Greenhouse Gas emissions from the production, drying, storage, transport and crushing of oilseeds shall be calculated as:

$$E = eec + ep + etd,$$

where:
E: total emissions from the soy beans: from cultivation to crushing
Eec: emissions from the extraction or cultivation of raw materials
Ep: emissions from processing
Etd: emissions from transport and distribution

## 2.2. Quality Management System

Management of the Triple S™ program will be integrated into the existing Cargill Quality Management Systems of participating businesses.

### 2.2.1. The Triple S Implementation Manager

There must be a nominated person responsible for Triple S matters (the 'Triple S Manager'). The Triple S Manager may be known by another title and also have other duties and responsibilities. The Triple S Manager must have appropriate authority to carry out the function effectively.

### 2.2.2. Documented System

Each Cargill business participating in the Triple S program must produce and implement its own set of operating procedures that incorporate the requirements of the *Triple S Principles and Criteria* applicable at the level of the supply chain where they operate.

Procedures must be updated to reflect any changes in the *Triple S Principles and Criteria* relevant to the participating company, as these occur.

### 2.2.3. Record Keeping

All records required by the *Triple S Principles and Criteria* must be kept for a minimum of five years, unless longer periods are required by legislation.

Storage facilities for records must prevent any deterioration or damage under normal storage conditions.

Records must be sorted and filed in such a way that information is complete and easily retrievable. Records must be legible.

# 3. Chain of Custody

Cargill businesses operating under the Triple S™ program must meet all of the following criteria.

## 3.1. Site Level Mass Balance

Triple S procedures must be followed by each Cargill-operated site (both owned and rented) involved in the Triple S program on a Mass Balance basis as illustrated in Figure 1 below.

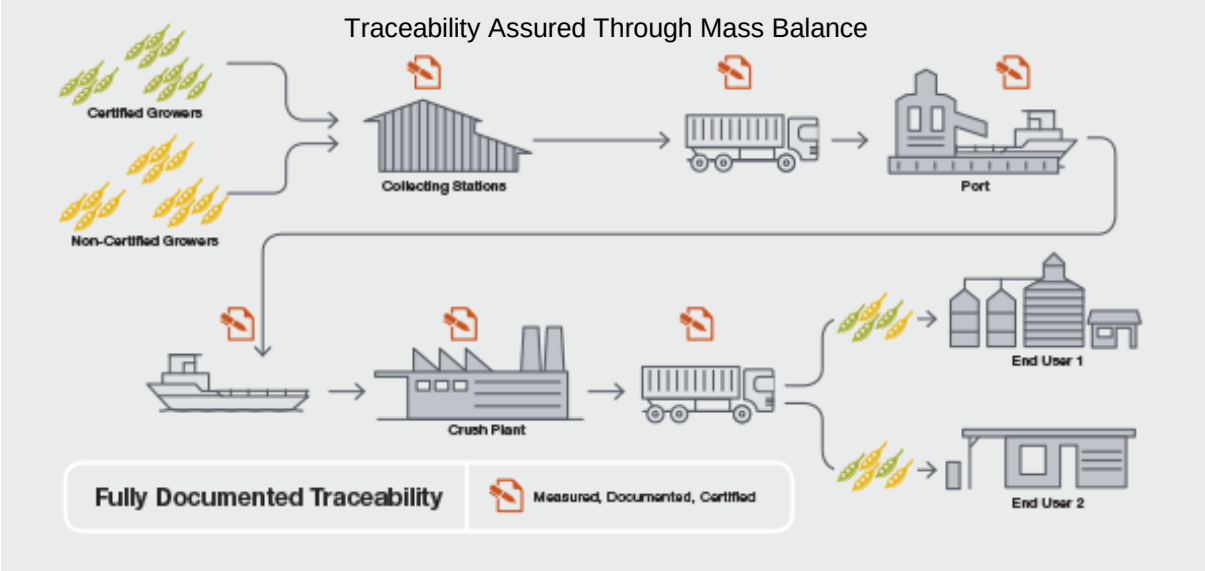


*Figure 1. Mass Balance Model for the Triple S program*

## 3.2. Assignment of data

Each physical batch of product within the Triple S Mass Balance system will only be assigned Triple S characteristics that represent the actual product from which it is drawn. For instance, Soy beans must have the actual processing plant production yield applied to be applied to the co-products e.g. where a production plant has a processing yield of 19% oil and 73% mean, 1000MT of Soy beans creates 190MT Oil and 730MT the balance is a combination of soy hulls, dust and crop residues.

## 3.3. Mass Balance boundaries

The physical boundary for the Triple S Mass Balance system shall be each individual site, in a single geographical location, with precise boundaries within which a product can be mixed. All facilities included in the same Mass Balance site should be physically connected, in that product can move within the site facilities without the need for transportation.

The time boundary for the Triple S mass balance system is 12 months. The reason for selecting a 12-month period for balancing is that soy is an annual crop, i.e. it is harvested once per year then marketed by the producers throughout the following year. The imposition of a mass-balance time period of less than one year would discriminate against certified producers and discourage them from signing up to this sustainability program. To reduce the administrative burden on the supply chain, and to encourage farmer engagement in the program, all products within Triple S will operate on a mass balance time period of 12 months.

Positive credit balances of certified material may only be carried forward to the next balancing period against physical stock.

## 3.4. Traceability

### 3.4.1. Traceability of incoming soy

Participating Cargill businesses must be able to demonstrate traceability for all soy received at any Cargill-operated site or Cargill-contracted ship or train, whether or not it is destined for the Triple S™ program. This will require the ability to produce a traceability trail for each delivery, back to the point in the supply chain where the previous mass balance occurred and/or the Triple S status of the soy can be verified.

Although an individual Cargill-operated site need not hold all relevant traceability records, they must be capable of accessing such records if required to do so.

To ensure traceability of incoming soy, the Cargill business must:

i. Record the names and addresses of the supplying farmers of incoming soy product;
ii. Record the type of soy product (e.g., soy beans, high protein soy, crude soy oil, etc.);
iii. Record the quantity of incoming soy product;
iv. Record the total amount of product at intake and the total amount coming from certified suppliers;
v. Identify the transport means and unique identification reference of the transport that carried the soy product.

### 3.4.2. Traceability of outgoing soy

Participating Cargill businesses must be able to demonstrate traceability for all soy products supplied and that the Mass Balance Model has been adhered to at each site in the participating supply chain(s).

To ensure traceability of outgoing products, the Cargill business must:

i. Record the type of product supplied (e.g., soy beans, soy bean meal, crude soy oil);
ii. Record the quantity supplied and, where appropriate, the number of the batch or lot supplied;
iii. Record the name and address of the customer;
iv. Record whether it is within the certified or non-certified stream;
v. Identify the transport means and unique identification reference of the transport for all feed soy dispatched.

### 3.4.3. Traceability at Cargill processing sites

The Mass Balance Model for the Triple S products must be adhered to by Cargill processing sites participating in the Triple S program. This will require the ability to produce a traceability trail for each consignment of soy products showing the period in which they were produced and the consignment(s) of raw materials from which they were produced.

For certified product, traceability must continue through any storage location, ships, vehicles, port(s), to the point at which responsibility for the product is passed to the purchaser.

Although an individual Cargill processing site need not hold all relevant traceability records, it must be capable of accessing such records if required to do so.

### 3.4.4. Process conversion factors

All records for calculating the conversion factors for certified soy beans processed into product fractions (e.g., meal, oil, lecithin, soy proteins, etc.) must be supported by actual processing data or a standard factor supported by actual processing data.

### 3.4.5. Identification of Triple S and Non-Triple S Soy products

To calculate the Mass Balance of participating businesses accurately, all products must be recorded as they enter and leave the site, regardless of whether they are within the certified or non-certified streams.

Where at any step in the supply chain compliance with Triple S™ requirements cannot be verified, all affected product must be allocated to the non-certified stream and sold as such.

### 3.4.6. Triple S supplier approval

Cargill businesses must develop and document procedures for ensuring that suppliers of soy products participating in the Triple S program comply with the *Triple S Principles and Criteria*, such that:

i. All Cargill businesses add the Triple S requirements into their documented management system;
ii. Each farmer participating in the Triple S program complies with farm-level requirements set out in the Triple S Principles and Criteria.

The performance of farmer suppliers will be reviewed each crop year to determine their continued suitability to participate in the Triple S program.

### 3.4.7. Sales contracts and records

All sales contracts relating to Triple S products must clearly state that the products to which they relate are Triple S.

The product type, quantity and delivery period will be stated in all contracts. Triple S Mass Balance requirements must be met at the time of delivery.

### 3.4.8. Non-Conforming Products

If at any time product is found not to conform to the Triple S Principles and Criteria on farm, as described in the farm-level and chain of custody requirement described in this document, it must be considered non-Triple S, non-certified product.

# 4. Certification

Cargill businesses participating in the Triple S™ program must be independently audited and independently certified.

## 4.1. Certification Principles

As compliance with the 5 Triple S Principles can only be fully achieved at the final point in the supply chain where all 5 requirements come together in a finished soy-based product supplied by Cargill to its customer, certification will be on a supply chain basis (e.g., a Cargill crushing plant in a specific location will be certified for supply of product travelling along a defined supply chain, or supply chains, via defined ports and from defined origins).

### 4.1.1. Defining the scope of certification

The scope of the audit will be determined by looking back up the supply chain(s) towards the origin of the soy beans from the Cargill business intending to market Triple S certified product.

In discussion with the Cargill business it will be determined which products it is intended to sell as Triple S certified and from this the Certification Body shall dictate which origins will need to be compliant.

Using risk analysis principles and taking into consideration what can be verified at which level of the supply chain, the Certification Body will decide which aspects of the supply chain must be included in the audit.

The details of individual supply chains will change with circumstances but typically it is envisaged that an audit will include:

i. The Cargill processing plants intending to produce Triple S certified products;
ii. Any external stores (including import facilities) where Triple S stream beans have been held (in the country where the processing plant is located);
iii. Checking consistency of shipments information;
iv. The export facility/facilities through which the beans were exported at origin;
v. The office(s) responsible for control of the Triple S program in the country of origin;
vi. Validation that controls are effective at all stores by assessing a sample of country elevators through which the Triple S stream beans have passed;
vii. Any barge terminals or railway terminals through which Triple S stream beans have passed;
viii. Validation that controls are effective on all farms, by assessing a sample of farms participating in the Triple S program.

### 4.1.2. Certification body

Cargill must appoint an independent Certification Body to certify Cargill businesses against the requirements of the *Triple S Principles and Criteria*.

The selected Certification Body shall not have any connection or vested interest in the day-to-day operation of Cargill businesses participating in the Triple S program.

The appointed Certifier must undertake audits of the full Triple S certified supply chain to ensure compliance with the *Triple S Principles and Criteria*.

The appointed Certification Body must be accredited under ISO Guide 65: 1996, ISO 17021: 2006, ISO 17065:2012 or another standard acceptable under UK Accreditation Service.

## 4.2. Audit program

The audit program must operate under the rules of ISO 19011:2002 or another standard acceptable under UK Accreditation Service.

### 4.2.1. Audit frequency

Audits of each Triple S™ supply chain must be undertaken on a minimum twelve-monthly basis to confirm continued compliance with Triple S requirements. Audits must be synchronized to crop years.

In exceptional circumstances it is possible to extend the certification frequency by up to 4 months, e.g. in the event of a Global pandemic.

### 4.2.2. Audit components

Although a supply chain audit will be undertaken each year, the components of the audit shall be determined annually on the basis described in the scope of certification above.

### 4.2.3. Auditor qualifications

Auditors appointed to undertake Triple S audits must be suitably qualified as assessors and have experience relevant to the supply chain being audited.

### 4.2.4. Non-conformances

Any non-conformances identified during audits must be notified to the Triple S Manager responsible for the business concerned.

### 4.2.5. Corrective actions

The Triple S Manager must respond to any non-conformances raised by the submission of corrective actions. A corrective action plan must be submitted to the Certification Body within 30 days of the audit. This should detail the actions which will be taken to rectify any non-conformance raised. Full supporting evidence must be received within 60 days of the audit. Corrective actions will be reviewed by the Certification Body and decisions made on whether the actions taken are satisfactory to rectify the non-conformance. Further action and documentary evidence may be requested following review. The Triple S Manager will be informed when the corrective actions have been approved.

## 4.3. Audit procedure

Once appointed, the independent Certification Body will dictate the audit schedule in line with the requirements of the *Triple S Principles and Criteria*.

### 4.3.1. Assessor selection

Assessors shall be selected, trained and appointed by the independent Certification Body.
As with all certification, at no point will Cargill be involved in selecting the assessor.

### 4.3.2. Audit scope

Assigned assessors will contact the Cargill business to be audited and arrange with them the dates and schedule for the audit.

As Triple S™ audits will consider entire Cargill supply chains, audits will assess all Cargill businesses participating in those supply chains where more than one business is involved, e.g. trans-Atlantic shipment of product to Europe from South America.

### 4.3.3. Audit schedule

The assigned assessor will dictate the audit schedule but the participating Cargill business units will be responsible for arranging the logistics, such as internal flights and road transport, to meet the schedule.

### 4.3.4. Assessment

The assigned assessor will audit against the current version of the Triple S Principles and Criteria, using the Triple S Checklist relevant to the supply chain being assessed. All relevant aspects of the Triple S Principles and Criteria will apply to any Cargill supply chain being assessed but the Triple S Checklist will contain guidance to assist the assessor in interpreting requirements for the specific geography, commodity and supply chain being audited.

## 4.4. Certificates of Compliance

Triple S certificates have a three-year validity, though are subject to a satisfactory annual audit being completed and any non-conformances which have been raised being satisfactorily corrected and corrective actions submitted to confirm this.

If non-conformances are not corrected within the permitted timescale Cargill will be informed and the Triple S certificate will be suspended.

If full corrective action is not received within 30 days of suspension the certificate will be withdrawn. In exceptional circumstances a plan of action and additional time may be agreed between Cargill and the Certification Body. Certificates remain the property of the Certification Body and may be withdrawn in the event of continued non-compliances.

# 5. References

The Triple S™ Program uses the best credible definitions that are available at time of review and references the below cited publications:

**Production standards:**
RTRS Standard for Responsible Soy Production Version 3.1 01 June 2017
https://responsiblesoy.org/documentos/rtrs-standard-for-responsible-soy-production-v31?lang=en

**Land use:**
ISCC 202 Sustainability Requirements Version 3
https://www.iscc-system.org/wp-content/uploads/2017/02/ISCC_202_Sustainability_Requirements_3.0.pdf

**Chain of custody:**
ISEAL Alliance – ISEAL Chain of Custody Models Guidance September 2016
https://www.isealalliance.org/sites/default/files/resource/201711/ISEAL_Chain_of_Custody_Models_Guidance_September_2016.pdf

# Annex – Examples of land use satellite analysis

The images below show the land use satellite analysis undertaken by Ciampagna on an annual basis. The farm shown in Argentina has not met the land use criteria for January 2008 as described in the Sustainable Land Use section and is permanently excluded from the Triple S™ program. The examples of Paraguay and Brazil are both meeting the Triple S criteria. It is interesting to note the different farm areas, which are typical of the farm production units in each country.

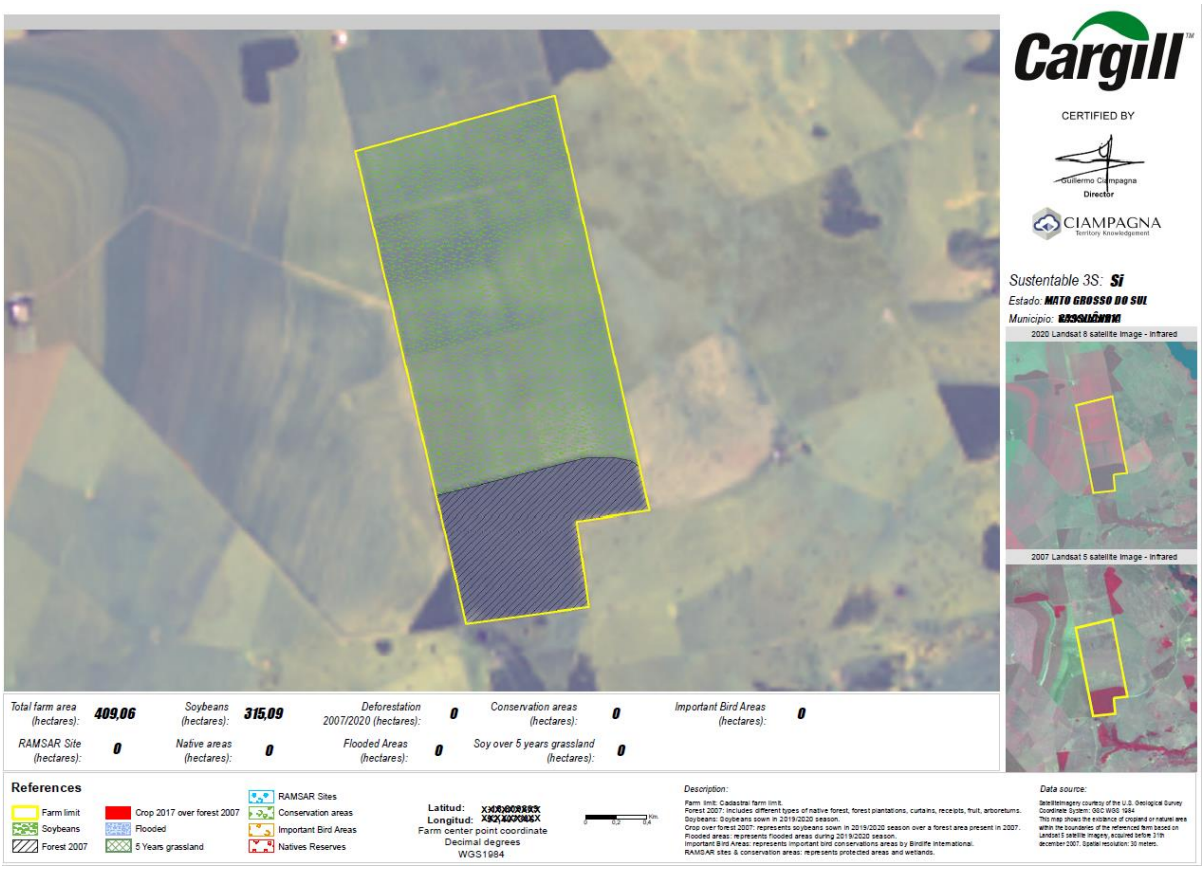


*Figure 2. Example of a farm land use analysis in Brazil that can qualify for Triple S*

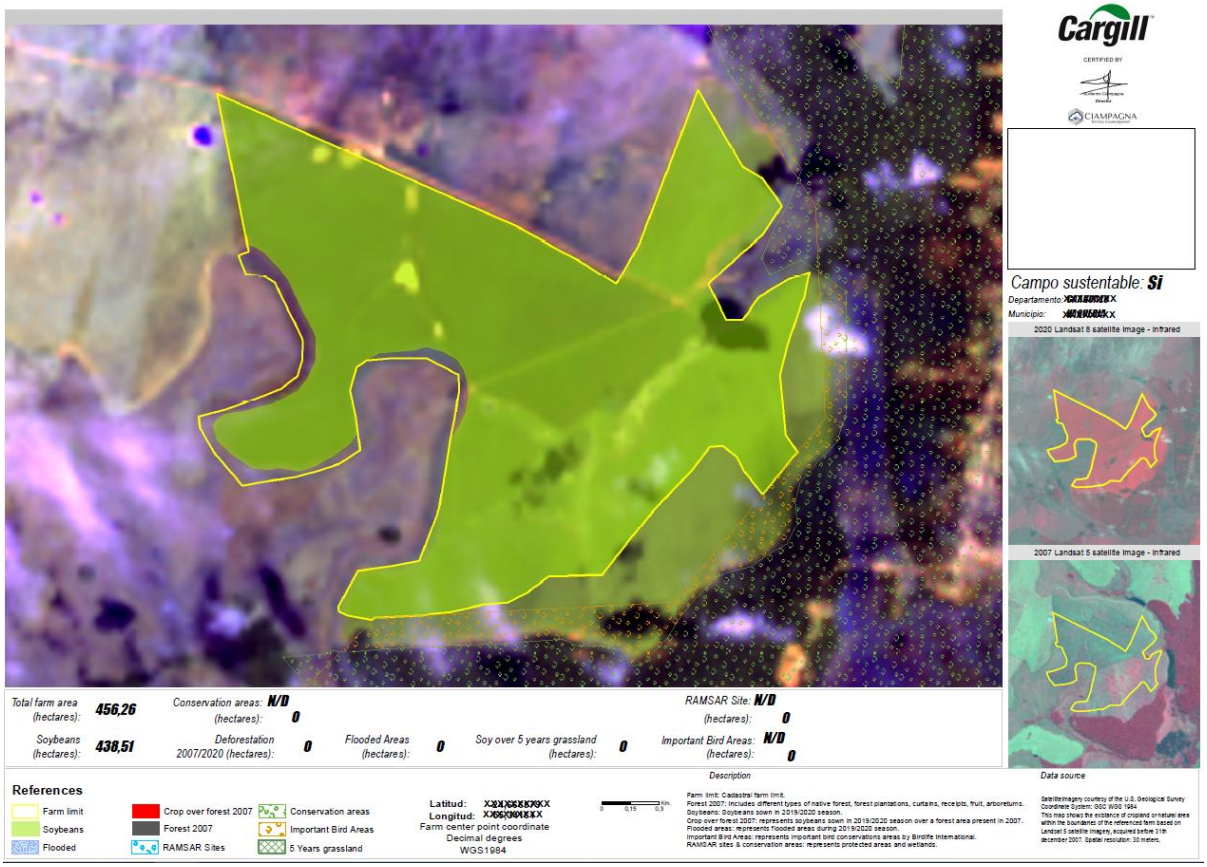


*Figure 3. Example of a farm land use analysis in Paraguay that can qualify for Triple S*


*Figure 4. Example of a farm land use analysis in Argentina that cannot qualify for Triple S*