



Round Table on Responsible Soy Association

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RTRS Technical Unit

technical.unit@responsiblesoy.org

and cc: info@responsiblesoy.org

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SOY AMOUNT ESTIMATION METHODOLOGY FOR RTRS CERTIFICATION

I. Introduction

The RTRS accreditation and certification system requires certification bodies to estimate the soy production volume of the production unit/s when certifying the campaign's foreseen RTRS production standard. This estimation is of vital importance for both the RTRS and producers since the RTRS will charge a €0.30 fee for each estimated ton in the certified unit/s; in turn, each ton of soy gives credits to producers, who will be able to trade them at the RTRS Credit Trading Platform.

Due to the aforementioned reasons and to the importance of homogenizing an opinion and a standardized estimation methodology for soy production estimations, the RTRS sets forth the methodology to be followed by auditors of RTRS-endorsed certification Bodies when auditing such estimation.

This estimation methodology should be used when the audit is conducted prior to the harvest and there is no accurate data of the current harvest yield.

II. Scope

This document establishes the criteria and guidelines for calculating the estimated soy production of those producers applying for the RTRS agricultural standard certification for their campaign.

Estimation must be made and updated annually for each campaign, when initial certification, annual surveillance, or re-certification audits take place.

Implementation date for this document: 10 March 2011

Review date: This document will be reviewed within no more than 3 years as of its effective date.

III. Definitions

Average yield: $\frac{\text{Total tons of soy produced}}{\text{Total hectares sowed}}$

Agricultural hectares: Production hectares sowed with soy over which producers have management and responsibility.

Production unit: Area over which producers are responsible for their management, develop their productive and conservation activity, and wish to submit to the certification process.

Similar agronomic conditions: They are determined according to: soil type, fertility levels, similar rainfall patterns, similar management practices (technology, tillage system, agrochemical application) among others.

Representative production unit: Production unit identified with similar agronomic conditions and management practices equivalent to all the units of the considered stratum. Its selection must be justified.

Stratum: Group of production units sharing similar or uniform agronomic features.

A. Estimation methodology for determining estimated soy production

Different estimation options will be presented from the most general to particular cases.

Auditors shall choose the estimation option based on conditions shown taking into account various factors, available information, and situations that may occur. Auditors shall justify their chosen estimation options.

It is important to clarify that if the information is available, but not immediately available when audits take place, auditors may: either ask for it before the audit or postpone the estimation until producers can provide this information which they do have, but which is not available at that moment. Each certification body may determine a maximum term for producers to submit the necessary information to carry out estimations.

A.1 General estimation methodology for estimated soy production

Estimated RTRS soy volume = [(average yield of last 5 campaigns x number of production unit's soy agricultural hectares) x 0.85]

If the result is a decimal number, rounding up should take place.

For example:

Estimated RTRS soy volume = 10,540.5 → rounds up to 10,541 estimated tons of RTRS certified soy.

Let's see one example using the formula:

Supposition: in the 5 years the same soy variety has been planted under similar agronomic conditions.

Necessary information 1:

Year 2006 average yield per hectare	2.90 metric tons
Year 2007 average yield per hectare	3.01 metric tons
Year 2008 average yield per hectare	2.82 metric tons
Year 2009 average yield per hectare	3.12 metric tons
Year 2010 average yield per hectare	2.60 metric tons
5-year average yield per hectare (to calculate 2011 campaign)	= 2.89 metric tons

Necessary information 2:

Number of soy agricultural hectares to be certified: 5,000

I apply the formula:

Estimated RTRS soy volume = $[(2.89 \times 5,000) \times 0.85] = 12,282.5$ tons

I apply rounding up = 12,283 estimated tons of RTRS certified soy.

The estimated 12,283 tons of soy is the figure that the auditor shall consider and include in his/her audit report.

A.2 Estimation methodology for estimated soy production in multi-site and/or group cases

A.2.1 For group or multi-site certifications with different production units having similar agronomic conditions, the estimation formula will be:

Estimated RTRS soy volume = $[(\text{last 5 year average yield of a representative production unit} \times (\sum \text{soy agricultural hectares of all multi-site or group sites})) \times 0.85]$

If the result is a decimal number, rounding up should take place.

Example:

Information 1

In this case, a representative unit having an average 2.95 ton yield per hectare in the last 5 years is chosen from the group.

Information 2: The group or multi-site is made up of 4 production units having the following areas:

Name of production unit	Area sowed
Unit I	1,200
Unit II	2,000
Unit III	1,500
Unit IV	1,600

I apply the formula:

Estimated RTRS soy volume = $[(2.95 \times (1,200 + 2,000 + 1,500 + 1,600)) \times 0.85] = 15,797.25$ tons

I apply rounding up = 15,798 estimated tons of RTRS soy.

A.2.2 For group or multi-site certifications with various production units having different agronomic conditions, the set of production units must be stratified in homogeneous groups as to similar agronomic conditions and management practices.

Then, in case the group or multi-site has been stratified into 2 groups, the estimation formula will be as follows:

Estimated RTRS soy volume = [(last 5 year average yield of a stratum 1's representative production unit x (\sum soy agricultural hectares of all stratum 1's sites)+ last 5 year average yield of a stratum 2's representative production unit x (\sum soy agricultural hectares of all stratum 2's sites)) x 0.85]

Example:

Information 1

The group or multi-site is made up of 6 production units and they are divided into 2 different strata.

One representative unit having a 3 ton average yield per hectare in the last 5 years is chosen from stratum 1.

One representative unit having a 2.05 ton average yield per hectare in the last 5 years is chosen from stratum 2.

Information 2

Stratum 1

Production Units	Soy agricultural hectares
Production unit I	1,200
Production unit II	2,000
Production unit III	1,500

Stratum 2

Production Units	Soy agricultural hectares
Production unit IV	2,000
Production unit V	2,000
Production unit VI	1,800

We apply the formula:

Estimated RTRS soy volume = [(3 x 4,700) + (2.05 x 5,800) x 0.85] = 21,891.75 tons

I apply rounding up = 21,892 estimated tons of RTRS soy.

The group stratification methodology may be applied considering the amount of available information for the different production units and their agronomic conditions and management systems. Those production units having a similar amount of available data can

be grouped and, according to the applicable methodology, (see items B.1, B.2 and B.3), estimated by strata. Once estimations have been made for each case, the stratification formula is applied (A.2.2) to obtain the estimated RTRS soy volume.

B. Cases where information on production units' average yields in the last 5 years is not available

B.1 Information on the last 5 years is not available, but there is information on the last 4 or 3 years¹.

In this case, estimation is made as usual (applying formulas in item A.1, A.2.1 or A.2.2 as applicable), but considering 4 or 3 year terms as applicable.

B.2 Information on previous yields is not available or there is only partial information on some years, but this does not reach the minimum of the last 3 years.

In this case, external public reliable and verifiable sources must be consulted, such as data from organizations like INTA (Argentina), Embrapa (Brazil), provincial, state, or national Secretariats or Ministries of Agriculture, etc.

Data of yields obtained from these sources will be used to make estimations with formulas in item A.1, A.2.1 or A.2.2 as applicable.

B.3 If it is not possible to have information as in case B.1 or if it is not possible to estimate as in case B.2.²

In this case, an estimate of the current plantation yield must be made through recognized agronomic calculations carried out by a qualified technical responsible person and, using this estimation, the formula A.1, A.2.1 or A.2.2 must be applied as applicable.

C. Calculation estimation for the following year

During the following year, the estimated total must be contrasted with the actual one.

If the actual total is higher than the estimated one, then credits must be added to the estimated number obtained from that year.

If the actual total is lower than the estimated one, it will be checked that no overselling occurred either through physical flow and/or virtual platform credits.

If credits are sold, through either physical or virtual flow, exceeding the total amount estimated by the auditor, penalties set forth in the RTRS penalties policy shall be applied.

¹ Note: Cases like B1 or B2 may be justified when producers are new in the area or when they rent or buy fields without enough information about previous managements.

² Note: In these cases, the way estimation is made must be justified.