

American Tree Farm System Sampling Procedures for Assessments

Updated August 10, 2022

Annex 1. Sampling Procedure for American Tree Farm System (ATFS) Regional or National Group(s)

1. Certification Bodies (CBs) shall have a process for sampling landowners/acreage that are/is part of an ATFS Regional or National Group. These groups comprise a collection of Tree Farm programs operating within designated geo-political boundaries (state, county) or fiber sourcing areas. A map of ATFS programs and boundaries can be found at <https://www.treefarmssystem.org/atfsgroups>.
2. A five-year certification cycle consists of an initial or recertification audit in the first year, followed by four years of surveillance audits.
3. The number of programs to be audited each year shall be determined by the following methodology:
 - 3.1. All programs within an ATFS group shall be included in an initial recertification or surveillance audit at least once within a five-year cycle. The sampling intensity of audits will follow the ISO guidelines (currently a five-year cycle).
 - 3.2. In the case of regional groups, the square root of the total number of participating programs rounded up to the next whole number, shall be assessed each year. ATFS will transition from three regional certificates to a national group structure covered by a single certificate by December 31, 2022.
 - 3.3. In the case of a single national group, the number of programs assessed each year will be calculated by the square root of the participating ATFS programs such that each program is assessed exactly once during a five-year certification cycle.
 - 3.3.1. The square root shall always be rounded up during Initial and Recertification audit years.
 - 3.3.2. During years in which surveillance audits occur, the square root shall be rounded to the nearest whole number that facilitates an even distribution of ATFS programs throughout the four surveillance audit years.
4. The number of certified properties to be audited within each program shall be selected according to the following methodology:
 - 4.1 By selected program, the number of properties selected will be based on one of three square root formulas:
 - 4.1.1. For initial audits, use the square root of the total ATFS certified properties per program.
 - 4.1.2. For re-certification audits, use 0.8 (as a coefficient) of the square root of the total ATFS certified properties per program.
 - 4.1.3. For annual surveillance audits, use 0.6 (as a coefficient) of the square root of the total ATFS certified properties per program.
 - 4.2. Determine the percentage of properties per selected program that falls within each acreage category as outlined in Table 1 below.

Table 1: Acreage categories for State Tree Farm Program properties.

Tract	Acreage Categories
1	10-100
2	101-500
3	501-1,000
4	1,001+

4.2.1. The properties to be sampled per selected program shall be apportioned (by percentage) within the program from Table 1. For example:

Three programs = Wisconsin, Georgia, and Packaging Corporation of America-Wallula sourcing area
 Total number of certified individual properties in Wisconsin is 1,177
 Square root for Wisconsin is 34 properties for minimum sample
 Individual certified Wisconsin properties have the following percentages in Table 2:

Table 2

10-100 acres	42% of total	42% of 34 = 14 sample properties
101-500 acres	32% of total	32% of 34 = 11 sample properties
501-1,000 acres	16% of total	16% of 34 = 5 sample properties
1,001+ acres	10% of total	10% of 34 = 3 sample properties

5. When selecting the programs and properties to audit, the CB is expected to consider various risk factors.
 - 5.1. Risk factors may include time since last internal monitoring inspection, recent harvest activities if known, cultural sites if known, threatened or endangered species if known, etc.
 - 5.2. Information on risk factors may vary according to the program sampled. CB shall take into account level of information available in each program when assessing various risk factors.
6. A CB shall conduct an audit to review the AFF Form 021 documentation maintained by the ATFS program. (The Form 021 documentation outlines the sampling approach, as currently developed by Virginia Tech, for the ATFS National Required Sample.)
 - 6.1. CBs shall focus on the Form 021 documentation maintained for the ATFS National Required Sample.

Annex 2. Sampling Procedure for ATFS Independent Management Groups (IMGs)

IMGs follow a separate sampling procedure from that of Regional Groups (as outlined in Annex 1). In particular, a sampling system for participating IMG properties is recommended as follows. (CBs may follow an alternative compliance path, included in Annex 3 of this document.) Annex 2 is applicable for sites consisting primarily of category 2 landowners [as defined by the American Tree Farm System® Independently Managed Group (IMG) Certification Standards (2015-2020)] and may be appropriate for IMGs with a small number of large landowners.

Annex 2 or 3 is applicable for state agency group managers, whereby the agency operates multiple offices and exercises some degree of regulatory oversight of landowners' management activities as a condition for continued membership in the group.

The CB shall document its rationale for use of either annex.

1. CBs shall have a process for sampling the properties that are part of an ATFS IMG. The sampling process follows IAF guidance for the certification of multiple sites based on sampling, which includes the following considerations:
 - Commonality and review of management plan(s) within the IMG
 - Internal monitoring program
 - Number of managing sites
2. CBs shall identify the duration for initial, surveillance, and recertification audits.
3. CBs shall design a sampling process to be conducted within the population of managing sites for the IMG. This sampling shall include at a minimum the following:
 - 3.1. Calculation of the number of **IMG sites** to be included in the audit. A site is defined as a permanent location where management of the Group program procedures is carried out, at least in part.
 - 3.1.1. For example, a Group Manager has one management system (group administration) for all properties covered under the Group Program, but this system is implemented through a **Central Office** and three field offices; therefore, the IMG has four sites.

3.1.2. A population of all **IMG sites** of the group organization will form the population to be sampled using the methodology in Table 3.

3.1.3. The **Central Office** site will always be included as one of the audited sites for each audit cycle.

Table 3. Number of Sites to Be Visited

Certification Stage	Sample Site Calculation
Certification	= square root (# sites)
Surveillance	= square root (# sites) x 60%
Re-certification	= square root (# sites) x 80%

3.2. Calculation of the number of audit days for each IMG site in the audit.

3.2.1. Audit duration at each site shall be based upon the effective number of personnel at that site. The effective number of personnel shall consist of all **full-time equivalent (FTE)** personnel involved with the implementation of the IMG program.

3.2.2. The total number of **IMG employees** and/or **contract management**, expressed in FTEs, will be used in conjunction with accepted IAF guidance to determine the audit duration for each site. See Table 4 for IAF guidance.

3.2.3. This is a baseline calculation. The CB shall have a process for adjusting the auditor-day calculation based upon risk factors present in the Group Program to be audited (see 3.2.4 and 3.2.5).

3.2.4. An auditor-day calculation is to be made for each site selected for audit.

3.2.5. For Group Programs with one to five sites, the auditor-day calculation will be adjusted for sampling intensity according to Table 3.

Table 4. Guidance for Assignment of Total Auditor Days Required Per Site According to Risk Assessment (IAF MD 5:2019 – Annex B)

Effective Number of Personnel	Audit Time Stage 1 + Stage 2 (days)				Effective Number of Personnel	Audit Time Stage 1 + Stage 2 (days)			
	High	Med	Low	Lim		High	Med	Low	Lim
1-5	3	2.5	2.5	2.5	626-875	17	13	10	6.5
6-10	3.5	3	3	3	876-1175	19	15	11	7
11-15	4.5	3.5	3	3	1176-1550	20	16	12	7.5
16-25	5.5	4.5	3.5	3	1551-2025	21	17	12	8
26-45	7	5.5	4	3	2026-2675	23	18	13	8.5
46-65	8	6	4.5	3.5	2676-3450	25	19	14	9
66-85	9	7	5	3.5	3451-4350	27	20	15	10
86-125	11	8	5.5	4	4351-5450	28	21	16	11
126-175	12	9	6	4.5	5451-6800	30	23	17	12
176-275	13	10	7	5	6801-8500	32	25	19	13
276-425	15	11	8	5.5	8501-10700	34	27	20	14
426-625	16	12	9	6	>10700	Follow progression above			

3.2.6. The CB shall conduct its own risk assessment for systematic nonconformance with the ATF Standard and ATFS-IMG-01. The CB shall assign a risk rating to the IMG as a whole or its individual sites.

Factors for increase in nonconformance risk include but are not limited to:

- Very large number of Group Members for the number of IMG personnel involved.
- System covers highly complex processes or relatively high number of unique activities.
- Higher sensitivity of the forest environment.

- Conflicting views of interested stakeholders.
- Geographic area covered by the IMG program.

Factors for decrease in nonconformance risk include but are not limited to:

- Maturity of the management system (for example, Group Manager control of forest management activities, regulatory enforcement, etc.).
- Consistency of forest management plans.
- Extensive tracking of forest management activities.
- Frequency of contact with Group Members and their properties (intensity of monitoring).

3.2.7. The CB shall document its reasons for assigning auditor days per site and disclose the rationale to client IMG management upon request.

3.2.8. The audit duration for all types of audits includes on-site time at the IMG site(s) and time spent off site carrying out planning, document review, interacting with client personnel, interacting with stakeholders and report writing. Off-site audit time involved in planning and report writing shall not comprise more than 20% of the total audit duration.

3.3. Sample weighting of IMG audit properties.

3.3.1. The total number of Group Member properties visited during the audit will be determined by the audit duration established for each site. Reasonable time will be allotted for travel to each property, interviews of owners and/or managers, and property inspection.

3.3.2. The total acres of the population of properties covered by the IMG Program will be tabulated.

3.3.3. Each property will be assigned a size class in accordance with table 5.

Table 5. Field Sample Acreage Classes

Tract Class	Acreage Categories
1	10-100
2	101-500
3	501-1,000
4	1,001-10,000
5	10,001-20,000

3.3.4. The sample of Group Member forest properties by size class drawn for audit by the CB shall reflect the percentage distribution of property size classes in the total population of IMG Group Members at the time of the audit. This should be based upon the distribution of properties in each size class.

3.3.5. The sample property list is to be constrained by the time required to reasonably conduct field reviews within the time (auditor days) calculated in 3.2.

3.3.6. When selecting the properties to audit as part of the field sample for each IMG site, the CB is expected to favor those having evidence of higher risk activities during the audit cycle. The CB should consider higher risk activities such as but not limited to road building and timber harvesting.

3.3.7. The CB should also weight sample selection toward properties containing species at risk, cultural sites, fish and riparian values, etc.

3.3.8. For a particular IMG audit cycle, the CB shall choose a representative sample of Group Member categories in addition to a representative sample of acreage classes.

3.3.9. Notwithstanding the above sample weighting guidance, at least 25% of the sample must be drawn at random by the CB.

Annex 3. Alternative Sampling Procedures for ATFS Independent Management Groups (IMGs)

Annex 3 is applicable for IMGs consisting primarily of several category 1 landowners [as defined by the American Tree Farm System ® Independently Managed Group (IMG) Certification Standards (20152020)].

Annex 2 or 3 is applicable for state agency group managers, whereby the agency operates a number of offices and exercises some degree of regulatory oversight of landowners' management activities as a condition for continued membership in the group.

The CB shall document its rationale for use of either annex.

1. IMGs follow a separate sampling procedure from that of Regional Groups (as outlined in Annex 1). In particular, a sampling system for participating IMG properties is recommended as follows.
2. CBs shall have a process for sampling landowners/acreage part of an ATFS IMG.
3. This process shall include at a minimum the following sampling plan:
 - 3.1. Calculate the square root of the total IMG certified properties.
 - 3.1.1. The square root is the total individual certified properties in the IMG to be sampled in the given year.
 - 3.1.2. Determine the percentage of landowner's acreage per IMG that falls within each tract as outlined in table 1 below.
 - 3.1.3. The properties to be sampled per selected IMG shall be divided (by representative percentages) within the IMG from Table 6.
 - 3.1.4. These numbers will serve as the basis for property sampling within the selected IMG.

Table 6

Tract Categories	Acreage Categories
1	10-100
2	101-500
3	501-1,000
4	1,000-10,000
5	10,001-20,000

4. When selecting the properties to audit, the CB is expected to factor in harvesting schedules and shall sample a mixture of landowners who are in harvest or have harvested with the past year as well as landowners who have not harvested within the past year.
5. For annual surveillance audits, take 0.6 (as a coefficient) of the square root of the total individual certified properties in the IMG and then follow the process as outlined above.
6. For re-certification audits, take 0.8 of the square root of the total individual certified properties in the IMG and then follow the process as outlined above.

Annex 4. Sampling Procedures for ATFS Individual Certification Holders

1. CBs shall develop a process for sampling properties for Individual Certification Holders that seek certification for multiple properties owned by the same entity.
2. This process shall use the following sampling plan as a guide.
 - 2.1. Calculate the square root of the total individual properties owned by the Individual Certification Holder.
 - 2.1.1. The square root is the total individual properties owned by the Individual Certification Holder to be sampled in the given year.
 - 2.2. When selecting properties to audit, the CB is expected to favor those having evidence of higher risk activities during the audit cycle.
 - 2.2.1. Higher risk activities include recent harvesting, wildlife, storm damage, etc.
 - 2.3. The CB may also weight sample selection toward properties containing threatened or endangered species, cultural sites, fish and riparian values, etc.
 - 2.4. The CB shall document how it will account for higher risk activities in the sample.

3. For annual surveillance audits, take 0.6 (as a coefficient) of the square root of the total individual properties owned by the Individual Certification Holder and then follow the process outlined above as a guide
4. For re-certification audits, take 0.8 (as a coefficient) of the square root of the total individual properties owned by the Individual Certification Holder and then follow the process outlined above as a guide.
5. The CB shall document its reasons for assigning auditor days-per-site that are above or below the average and disclose the rationale to client IMG management.