

3.8.1 Field Stratification

Stratification is the **most critical** step in the survey process. Stratification is the process of defining and identifying populations with similar characteristics within an opening. The objective of stratification is to increase sampling precision by delineating homogenous strata within an opening, so that there is less variation within each stratum than within the entire opening. Stratification is used to increase the efficiency of the survey by reducing the number of plots required per stratum to reach a desired sampling precision. Stratification can also improve the reliability of the treatment recommendations.

Stratification is required to meet the legal requirements specified in the silviculture plan or prescription. Silviculture prescriptions or site plans contain one or more standards units that are developed according to biogeoclimatic classification, site attributes and stand management objectives. If more than one standard unit is defined in the silviculture plan or prescription, these standard units must be stratified and surveyed separately.

These standards units (**SUs are the first initial stratification criteria**) are further subdivided based on the following stratification criteria:

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|-----------------------------------|--|
| • <u>stocking</u> | NSR, SR, FG |
| • leading inventory label species | Change of leading species,
for example, Fd ₈₀ Ss ₂₀ vs. Ss ₇₀ Cw ₃₀ |
| • inventory species composition | >20% difference,
for example, Fd ₉₀ Ss ₁₀ vs. Fd ₆₀ Ss ₄₀ |
| • <u>age class</u> | >20 years difference between leading species* |
| • <u>height class</u> | >10 m difference between leading species* |
| • <u>crown closure</u> | >20% difference between strata |
| • site index | >3 m difference in SI 50 |
| • treatment recommendations | |
| • stand structure | |
- * **Note:** These are the minimum requirement guidelines set by the Forest Analysis and Inventory Branch.

The following two examples provide a comparison of the significantly different survey findings that correct stratification will result in. Figure 8 depicts the results of an unstratified survey for a fictional opening. Figure 9 demonstrates the results of correct stratification for the same opening.