

STAND DESCRIPTION

Concepts and Definitions

Through the course of every profession a particular language, terminology, or jargon is developed. The concepts and definitions listed below are part of those which make up the jargon of forestry.

I. TERMINOLOGY OF FORESTS AND STANDS

An important concept often misunderstood in forestry is the difference and utility of the terms forest and stand. Remember that the stand is the unit which is of interest in silviculture. The forester practices silviculture on stands, not on forests. The following terms and definitions will serve to clarify the concept of stands as used by silviculturists.

1. Forest – A plant association predominantly of trees or other woody vegetation, a collection of stands.

2. Stand – An aggregation of trees or other growth occupying a specific area and sufficiently uniform in species composition, size, age, arrangement, and condition as to be distinguished from the forest or other growth on adjoining areas.

3. Stand Species Composition – The composition of stands is conceived of as being either pure or mixed. These are defined as:
 - (a) Pure Stand – A stand in which at least 80% of the trees in the main canopy are of single species.
 - (b) Mixed Stand – A stand in which less than 80% of the trees in the canopy are of a single species.

4. Stand Density – The density of stocking expressed in number of trees, basal area, volume, or other criteria, on a per-acre basis. In addition, stocking is further modified and defined as:
 - (a) Fully stocked stands – Stands in which all the growing space is effectively occupied but which still have ample room for development of the crop trees.
 - (b) Overstocked stands – Stands in which the growing space is so completely utilized that growth has slowed down and many trees, including dominants, are being suppressed.
 - (c) Understocked stands – Stands in which the growing space is not effectively occupied by crop trees.

5. Stand Form – Stands are usefully described and considered from the standpoint of the age classes of which they are composed. Generally, two stand forms are recognized. These are:

- (a) Even-aged stands – Stands in which there exists relatively small age differences between individual trees.
- (b) Uneven-aged stands – Stands in which there exists relatively large age differences between individual trees. At least 3 age classes are present. A similar term is all-aged stand.

6. Stand Origin – Stands may be classified by origin; whether from seed or sprouts and suckers, or a combination of the two. Also descriptive of origin are natural or planted, and virgin or second growth.

II. TERMINOLOGY FOR INDIVIDUAL TREES

The previous concepts and terms apply in a general sense to stands and are useful in the description thereof. However, to adequately describe stands, it is necessary to employ terms which are descriptive of some characteristic of the individual trees within the stand. Some of the more common ones are given in the following:

1. Tree Size Classification – The timber species are conveniently designated by certain size classes through their life development. They are:

- (a) Seedling – from germination to 2 inches d.b.h.
- (b) Sapling – from 2 to 4 inches d.b.h.
- (c) Pole - from 4 to 12 inches d.b.h.
- (d) Standard – from 12 to 24 inches d.b.h.
- (e) Veteran – over 24 inches d.b.h.

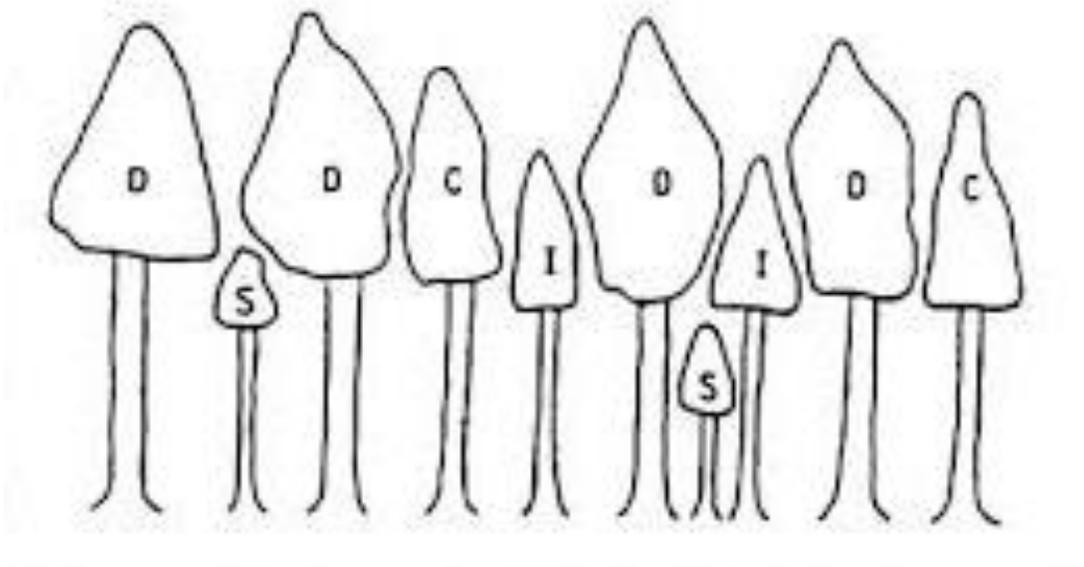
2. Crown Classification - Trees in even-aged stands are classed on the basis of crown position in the canopy by a simple method which has long been standard procedure. These four classes are:

- (a) Dominant – Trees with crowns extending above the general level of the crown cover and receiving full light from above and partly from the side; larger than the average trees in the stand, and with crowns well developed but possibly somewhat crowded on the sides.

(b) Codominant – Trees with crowns forming the general level of the crown cover and receiving full light from above but comparatively little from the sides; usually with medium sized crowns more or less crowded on the sides.

(c) Intermediate – Trees shorter than those in the two preceding classes, but with crowns either below or extending into the crown cover framed by the codominant and dominant trees, receiving a little direct light from above, but none from the sides, usually with small crowns considerably crowded on the sides.

(d) Suppressed – Trees with crowns entirely below the general level of the crown cover receiving no direct light either from above or from the sides.



3. Tolerance – This is an important concept in silviculture which is generally defined as the ability or capacity of a tree to develop and grow in the shade of and in competition with other trees. Species are generally ranked by the broad classification of being either tolerant or intolerant.

4. Site Class or Site Quality – This is an additional concept of classification used freely by silviculturists when considering stands. It is defined as a designation of the relative production capacity or quality of a site (location or place). The volume or the average height of dominant and codominant trees at a given age is usually used as standard for classification.

5. Crown Percent – This is a descriptive tree term and is simply the percentage of crown length compared to total height.

