

In this Glossary, botanical terms are explained which are used in the *Digiphyll*-Manuals to describe leaf traits. Abbreviations: **MLA** - *Manual of Leaf Architecture*. Ellis et al. (2009) (see references).

- **1° vein, primary vein, major vein**
Veins are classified according to their size: The largest vein(s) is (are) termed 1° vein, primary vein(s) or major vein(s). Major veins represent the lowest order of veins. For leaves with more than one major vein: To be classified as a major vein, the diameter must be no less than 75% of that of the largest vein.
- **2° vein, secondary vein**
The next lower level (with respect to the major veins) is represented by the 2° or secondary veins.
- **3° vein, tertiary vein**
The third level of the vein hierarchy is represented by the 3° or tertiary veins which – together with higher order veins – form the ultimate mesh of the leaf venation.
- **Abaxial**
Facing away from the axis (of the stem); the underside of a leaf.
- **Adaxial**
Facing toward the axis (of the stem); the upper side of a leaf.
- **Anticline**
Relating to the plane at right angles to the surface of an organ (leaf).
- **Apex**
The tip of the leaf.
- **Apical (= distal)**
Toward the apex (tip) of the leaf.
- **Blade (= lamina)**
The planar broad part of the leaf without the petiole.
- **Basal (= proximal)**
Toward the base of the leaf.
- **Compound leaf**
A subdivided leaf: a leaf whose lamina is subdivided into two or more completely separate areas. The single units or components are termed leaflets.
- **Distal (= apical)**
Toward the apex (tip) of the leaf.
- **Exmedial**
Away from the midline of the lamina or midvein.
- **Gauge**
Size of vein classes (term applied in MLA).
- **Insertion point**
The place where the petiole enters the base of the lamina.
- **Intercostal (vein)**
A tertiary vein which intersects a secondary vein but no primary vein.
- **Intersecondary (vein)**
2°-veins, which have courses similar to the major secondary veins but generally shorter in exmedial extent and intermediate in gauge between major 2° and 3° veins.
- **Intramarginal (vein)**
A vein showing a diameter comparable to that of secondary veins and which runs parallel to the leaf margin, but not touching it.

- **Lamina (= blade)**
The planar broad part of the leaf without the petiole.
- **Leaf**
A leaf consists of two parts, a petiole (stalk) and the lamina (blade).
- **Leaflet**
The discrete, leaf like division (segment) of a compound leaf.
- **Leaf apex (= leaf tip)**
The apical portion of the lamina: covers the upper 25% of the lamina length.
- **Leaf base**
The basal portion of the lamina: covers the lower 25% of the lamina length.
- **Leaf margin**
The outer edge of the lamina.
- **Leaf tooth**
A tooth-like projection of the leaf margin (see also „lobe“).
- **Lobe**
When a lamina is subdivided by clefts the single sections are termedd “lobes”. According to the definition in the MLA, a lobe differs from a tooth (see “leaf tooth”) by its size: the distance between sinus representing the cleft and midvein must not exceed 75% of the distance between lobe apex and midvein.
- **Loop (vein)**
Vein loops are formed by secondary veins which do not run towards the leaf margin but join to build prominent arches or loops. This venation type is termed “brochidodromous” (see Manual “Leaf traits”). The diameter of the secondary veins forming the loops can become somewhat smaller, compared to the distal compared to the vein parts proximal to the loops. If the diameter of the veins within the loop region is substantially smaller than the original diameter, the venation type is termed “weak brochidodromous” (see Manual “Leaf traits”).
- **Major vein, 1° vein, primary vein**
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- **Petiole (= stalk)**
The stalk that attaches the leaf to the axis.
- **Primary vein, 1° vein, major vein**
Veins are classified according to their size: The largest vein(s) is (are) termed 1° vein, primary vein(s) or major vein(s). Major veins represent the lowest order of veins. For leaves with more than one major vein: To be classified as a major vein, the diameter must be no less than 75% of that of the largest vein.
- **Proximal (= basal)**
Toward the base of the leaf.
- **Rachis**
The main axis of a compound leaf.
- **Secondary vein, 2° vein**
The next lower level (with respect to the major veins) is represented by the 2° or secondary veins.
- **Simple leaf**
A leaf with a single segment of lamina tissue.
- **Sinus**
The cleft, depression, or recess between two lobes of a lamina.

- **Stalk (= petiole)**
The stalk that attaches the leaf to the axis.
- **Trichome**
A hairlike outgrowth from the surface of a plant.
- **Taxonomy**
The species name with species author and year of publishing. E.g. *Acer haselbachense* Walther 1972.
- **Tertiary vein, 3° vein**
The third level of the vein hierarchy is represented by the 3° or tertiary veins which – together with higher order veins – form the ultimate mesh of the leaf venation.

References:

Ellis et al. (2009), Harris & Harris (1999)