

Plant Profiles: HORT 2242 Landscape Plants II
NEEDLE NUMBER/ATTACHMENT
How to Identify a Pine, Spruce and Fir by Needles

Genera: *Pinus* (pine), *Picea* (spruce), *Abies* (fir)

Family Name: Pinaceae – pine family

Steps to take to determine pine, spruce or fir:

- 1. How many needles and how are they attached? This should be the first decision you make as it tells you what genus it could or absolutely could not be.**
2. Cone features
 - a. Are the cones pendulous or upright?
 - b. How do the cones mature? Does it take two years for the cones to mature? Do they stay intact at maturity or do they disintegrate upon maturity?
3. Bud features – Are there terminal and lateral buds? Only terminal buds? What do they look like?
4. Form/habit – Is it pyramidal when young, but broadens with age (loses apical dominance)? Is the tree pyramidal throughout its lifespan? Notice size, shape, form and color as you approach the tree as these features will all help to confirm the identification of the plant.

NOTE: For complete information on all the steps listed please consult *Plant Profiles: Hort2242 Landscape Plants II - How to Identify Pine, Spruce and Fir*.


Resources Consulted:

Dirr, Michael A. *Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses*. Champaign: Stipes, 2009. Print.

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	<p>Leaf Number/Attachment: <i>Pinus</i></p> <ul style="list-style-type: none">• Description: If there are 2, 3 or 5 needles attached in a fascicle (bundle) on the stem, it is <i>Pinus</i>. On 2 and 3- needle pines, the fascicle is held in place with a thin membranous sheath called a fascicle sheath or bundle sheath. On 5-needle pines the fascicle sheath is quickly deciduous and will not be present.• Image Source: Karren Wcisel, TreeTopics.com• Image Date: 2014• Image File Name: pinus_leaf_00.png
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Leaf Number/Attachment: *Picea*

- Description: If there is only one needle attached at a site on the stem, look closely to see how it is attached. If the needle attaches to a small, peg-like structure it is *Picea*. The peg-like structure remains on the stem after the needle falls off creating a rough stem.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: January 3, 2014
- Image File Name: picea_leaf_4209-4205.png



Leaf Number/Attachment: *Abies*

- Description: If there is only one needle and the needle attaches directly onto the stem leaving a circular leaf scar, it is *Abies*.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: September 7, 2008
- Image File Name: abies_leaf_3744.png



Leaf Number/Attachment: *Abies*

- Description: Observe the slightly concave, circular leaf scar of *Abies*.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: January 31, 2011
- Image File Name: abies_leaf_1250001.png