

Summer Key for Pennsylvania Trees



Protected Under
18 U.S.C. 707

PENNSTATE



College of Agricultural Sciences
Cooperative Extension



Some trees to be identified by their leaves



A



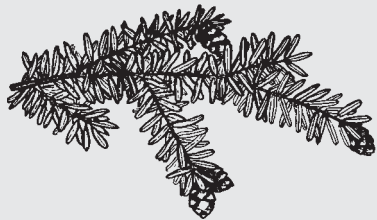
B



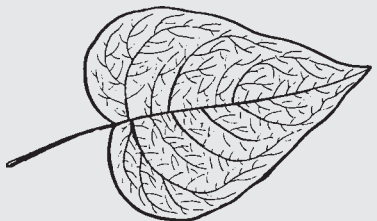
C



D



E



F

A

If the tree has

go to

1a. Leaves needle or scale-like	2
1b. Leaves broad and flat	12
2a. Leaves scale-like	3
2b. Leaves needles	4
3a. Scales pointed, twigs not flat	redcedar
3b. Scales blunt, twigs flat	white cedar
4a. Needles (leaves) single on twigs	5
4b. Needles (leaves) in bundles, tufts, or rosettes	7
5a. Needles flat, blunt	6
5b. Needles four-sided and sharp-pointed	spruce
6a. Needles with small stalks (attaches needle to twig)	hemlock
6b. Needles without stalks	fir
7a. Needles in bundles with sheaths at base	8
7b. Needles in tufts or rosettes	larch
8a. Needles in bundles of 5	white pine
8b. Needles not in bundles of 5	9
9a. Needles in bundles of 3	pitch pine
9b. Needles in bundles of 2	10
10a. Needles about 4 inches long	11
10b. Needles 1.5 to 3 inches long	Virginia pine
11a. Needles sharp-pointed and flexible	Austrian pine
11b. Needles stiff, snap apart when bent	red pine
12a. Leaves opposite or whorled on stem	13
12b. Leaves alternate on stem	18
13a. Leaves opposite on stem	14
13b. Leaves whorled on stem	catalpa
14a. Leaves simple	15
14b. Leaves compound (leaf made up of leaflets)	16
15a. Margins entire	dogwood
15b. Margins lobed	maples
16a. Pinnately-compound	17
16b. Palmately-compound	horse chestnut
17a. Leaf divided into 3 to 5 leaflets	box-elder
17b. Leaf divided into 7 leaflets	ash
18a. Leaves simple	19
18b. Leaves compound (leaf made up of leaflets)	39

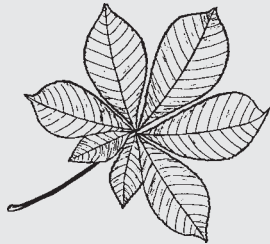
Some trees to be identified by their leaves



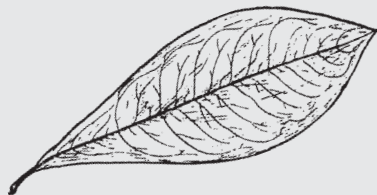
G **O**



H **O**



I **O**



J **A**



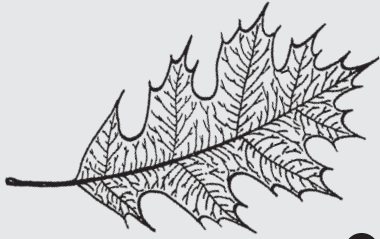
K **A**



L **A**

If the tree has	go to
19a. Margins entire	20
19b. Margins deeply cut, lobed, or toothed	22
20a. Leaf base heart-shaped	redbud
20b. Leaf base tapering	21
21a. Leaves 2 to 5 inches long, leathery	black gum
21b. Leaves 5 to 10 inches long, thin	cucumber
22a. Margins deeply cut or lobed	23
22b. Margins coarsely or finely toothed	28
23a. Leaves with five deeply cut lobes, star-shaped leaf	sweet gum
23b. Leaves not star-shaped	24
24a. Leaves square or notched at top	tulip poplar
24b. Leaves not square or notched	25
25a. Leaves from same tree may be entire, or with one or two lobes; aromatic	sassafras
25b. Leaves with more than two lobes	26
26a. Leaf veins pinnate	27
26b. Leaf veins fan-like	mulberry
27a. Lobes rounded	white oak group
27b. Lobes sharp-pointed with a hair-like bristle on end of each lobe	red oak group
28a. Teeth coarse, one at end of each lateral vein	29
28b. Teeth fine, several for each main lateral vein	30
29a. Leaves slender, 3 times as long as broad	chestnut
29b. Leaves not more than 2 times as long as wide	beech
30a. Leaves very narrow, 4 or 5 times as long as wide	willow
30b. Leaves broad	31
31a. Leaves not over 1.5 times as long as broad	32
31b. Leaves about twice as long as broad	33
32a. Unequal heart-shaped leaf base, round stem	basswood
32b. Leaf base not heart-shaped, sides equal at base, stem tends to be flattened	aspen
33a. Leaves smooth, single serrate, fine teeth	34
33b. Leaves rough or hairy	35
34a. Leaf stalk with one or two glands (small bumps on stem); has a sour odor when twig is broken	cherry
34b. Leaf stalk without glands (serviceberry)	juneberry

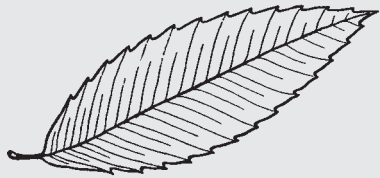
Some trees to be identified by their leaves



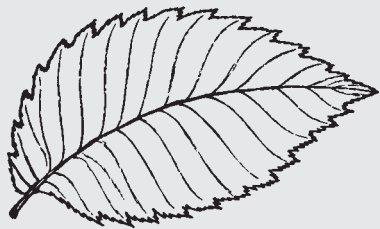
M **A**



N **A**



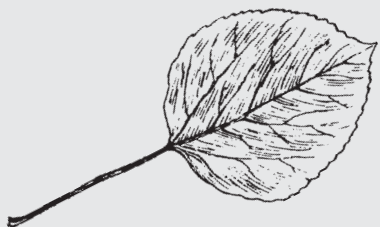
O **A**



P **A**



Q **A**



R **A**

If the tree has

go to

35a. Rough leaves	36
35b. Soft, hairy leaves	37
36a. Leaf margins double-serrate from base, pinnately veined	elm
36b. Leaf margins single-serrate from above base, tips long-pointed, fan-veined	hackberry
37a. Leaf margins double-serrate, base blunt to slightly heart-shaped, some aromatic	birch
37b. Leaf margins double-serrate, base tapered or rounded	38
38a. Leaves nearly as broad as long	alder
38b. Leaves narrow and pointed	hop hornbeam (ironwood)
39a. Sap milky (in stems)	sumac
39b. Sap not milky	40
40a. Terminal leaflet usually larger than other leaflets	hickories
40b. Terminal leaflet as large or smaller than other leaflets, or it may be lacking	41
41a. Leaflet round-tipped	black locust
41b. Leaflet pointed	42
42a. Leaves smooth	43
42b. Leaves hairy	44
43a. Leaves not over 7 inches long	mountain ash
43b. Leaves over 12 inches long	ailanthus
44a. Terminal leaflet as large as other leaflets	butternut
44b. Terminal leaflet small or lacking	black walnut

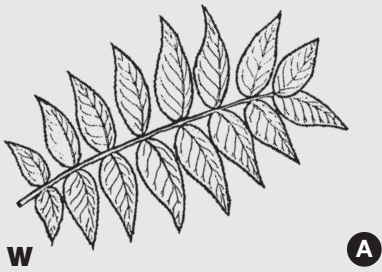
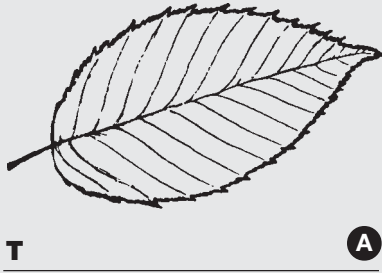
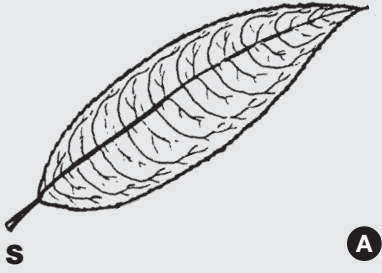
Answers

- | | |
|-------------------|-----------------|
| A. white pine | M. red oak |
| B. pitch pine | N. white oak |
| C. Virginia pine | O. beech |
| D. red pine | P. elm |
| E. hemlock | Q. willow |
| F. catalpa | R. aspen |
| G. dogwood | S. cherry |
| H. maple | T. birch |
| I. horse chestnut | U. hickory |
| J. black gum | V. black locust |
| K. tulip poplar | W. black walnut |
| L. sassafras | |

A Alternate

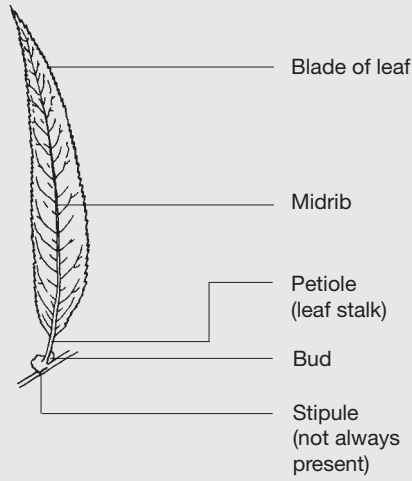
O Opposite

Some trees to be identified by their leaves

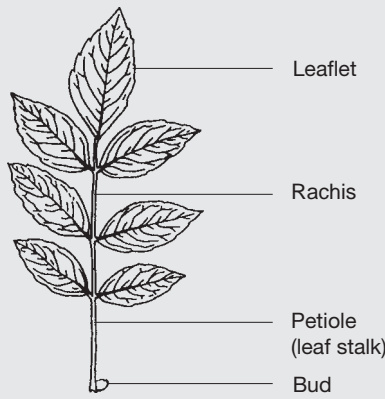


Leaf Structures

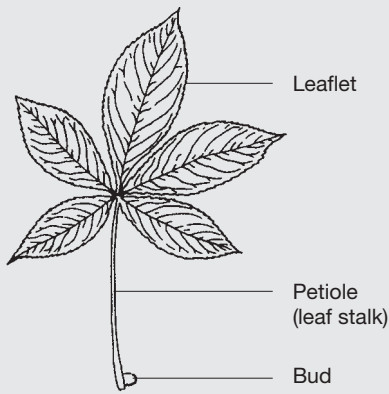
A simple leaf



Compound leaves



Pinnately compound



Palmately compound

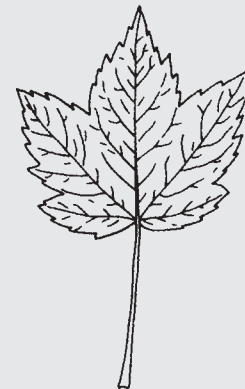
Leaf types



Scale-like



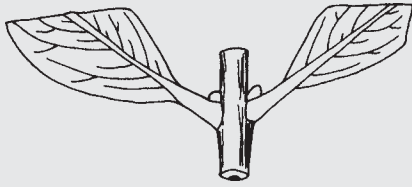
Needles



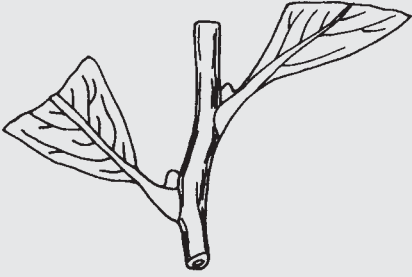
Broad and flat

Leaf Structures

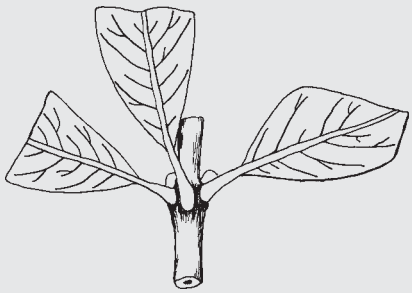
Leaf arrangement



Opposite



Alternate



Whorled

Leaf margins



Entire



Dentate



Serrate



Double serrate



Lobed

Key revised by Sanford S. Smith, natural resources and youth extension specialist, and Paul Brohn, extension forester, from the key originally written by Terry D. Rader, former state extension specialist, and James J. Grippo, extension agent.

Visit Penn State's College of Agricultural Sciences on the Web: <http://www.cas.psu.edu>

Penn State College of Agricultural Sciences research, extension, and resident education programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

This publication is available from the Publications Distribution Center, The Pennsylvania State University, 112 Agricultural Administration Building, University Park, PA 16802. For information telephone 814-865-6713.

Issued in furtherance of Cooperative Extension Work, Acts of Congress May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture and the Pennsylvania Legislature. T. R. Alter, Director of Cooperative Extension, The Pennsylvania State University.

This publication is available in alternative media on request.

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Discrimination or harassment against faculty, staff, or students will not be tolerated at The Pennsylvania State University. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 201 Willard Building, University Park, PA 16802-2801, Tel 814-865-4700/V, 814-863-1150/TTY.

© The Pennsylvania State University 2002

Produced by Information and Communication Technologies in the College of Agricultural Sciences