# Menu structure

# LEAF CHARACTERISTICS

# LEAF PERSISTENCE

- •Evergreen
- •Deciduous

# LEAF ARRANGEMENT

- Alternate
- •Opposite
- Whorled
- •2 Leaves per Fascicle
- •3 Leaves per Fascicle
- •5 Leaves per Fascicle
- •On Indeterminate Short Shoot

# LEAF COLOR

- •Bluish
- •Yellowish
- •Brownish
- •Two white lines on underside
- •Numerous white lines

# LEAF APEX

- Acuminate
- •Acute
- Rounded
- •Emarginate

# **LEAF MARGIN**

- •Entire
- •Serrulate

# **LEAF SHAPE**

- •Broad Fan Shaped
- •Linear
- •Acicular
- •Subulate
- •Scale
- Twisted
- Quadrangular in Cross Section
- Flattened in Cross Section
- Decurrent
- Petiolate

- •Petiolate on a Peg
- •Sessile on a Peg

# **LEAF SURFACE**

- •Glabrous
- •Glaucous
- •Glandular

# **LEAF PHYSICAL PROPERTIES**

- •Soft
- •Stiff
- Flexible
- Brittle

# **LEAF LENGTH**

- •< 1 cm
- •1.1 3.5 cm
- •3.6 6.5 cm
- •> 6.5 cm

# **LEAF WIDTH**

- < = 2 mm
- •> 2 mm

# TWIG CHARACTERISTICS

# TWIG SURFACE

- •Glabrous
- •Glaucous
- Pubescent

# TWIG WIDTH

- •< 2 mm
- •<u>2 5 mm</u>
- •>5 mm

# **BUD SCALE COLOR**

- •Reddish
- •Yellowish
- •Greenish
- •Brownish
- •Grayish
- Blackish

#### LEAF SCAR SHAPE

- •Small and inconspicuous
- •Readily Visible
- Circular
- Elliptical
- •Peg-like projections
- •Slightly raised cushion

# LEAF SCAR ARRANGEMENT

- •Alternate
- •Opposite
- Whorled

# TWIG BARK TEXTURE

- •Smooth
- •Rough

# TWIG BARK COLOR

- Reddish
- •Orangish
- •Yellowish
- •Greenish
- •Brownish
- •Grayish
- Blackish

# TRUNK BARK CHARACTERISTICS

# TRUNK BARK TEXTURE

- •Smooth
- •Rough
- •Plate like scales
- •Vertical Strips
- •Ridges and Furrows

# RIDGE/PLATE CHARACTERISTICS

- •Rounded Ridges
- •Scaly Ridges
- •Irregular Ridge Pattern
- •Rectangular Plates

#### **FURROW CHARACTERISTICS**

- •Very thin (< 3 mm)
- •Narrow (3 25 mm)
- •Broad (> 25 mm)

# **OUTER BARK COLOR**

- •Whitish
- •Reddish
- •Orangish
- •Yellowish
- •Tannish
- •Brownish
- Grayish
- Blackish

# **INNER BARK COLOR**

- •Whitish
- •Reddish
- Orangish
- •Yellowish
- •Tannish
- •Brownish
- •Grayish
- •Blackish

# TRUNK BARK THICKNESS

- •Thin (< 0.6 cm)
- •Average Thickness (0.6 to 2.5 cm)
- Very Thick (> 2.5 cm)

# CONE CHARACTERISTICS

# FEMALE CONE SHAPE

- •Spherical
- •Egg Shaped
- Cylindrical

# FEMALE CONE LENGTH

- •< 2.0 cm
- •2.1 cm 5.0 cm
- •5.1 cm 7.0 cm
- •> 7.1 cm

# FEMALE CONE WIDTH

- •< 2.0 cm
- •2.1 cm 5.0 cm
- •<u>5.1 cm 7.0 cm</u>
- •> 7.1 cm

# **OVULIFEROUS SCALE COLOR**

- Reddish
- •Orangish
- •Yellowish
- •Tannish
- •Brownish
- •Bluish

#### **OVULIFEROUS SCALE MORPHOLOGY**

- •Thin Ovuliferous Scale
- •Thick Ovuliferous Scale
- •Distinct Keel on Ovuliferous Scale
- •Prickle at Apex of Ovuliferous Scale
- •Ovuliferous Scales Are Fused Together

# OVULIFEROUS BRACT MORPHOLOGY

- •Ovuliferous Bract Shorter than Ovuliferous Scale
- •Ovuliferous Bract Longer than Ovuliferous Scale
- •Ovuliferous Bract is Fused with Ovuliferous Scale
- Apex of Ovuliferous Bract is Lobed

#### SEED MORPHOLOGY

- Orange Fleshy Seed Coat
- •Scarlet fleshy aril around seed
- •Bluish `Berry` Like
- •Wing like extension of seed coat

#### TREE SHAPE

- •Shrub
- Pyramidial
- Conical
- •Spreading
- Broad
- Rounded

#### **FAMILIES**

- •Cupressaceae
- •Ginkoaceae
- •Pinaceae
- •Taxaceae

# **GENERA**

- •Abies
- •Ginkgo
- •<u>Juniperus</u>
- •<u>Larix</u>
- •<u>Metasequoia</u>
- •Picea
- •Pinus
- $\bullet \underline{Pseudotsuga}$
- •<u>Taxodium</u>
- •<u>Taxus</u>
- •Thuja
- $\bullet \underline{Tsuga}$