Littleleaf Linden
(*Tilia cordata*)

**General Description**
Medium-sized tree native to Europe, with a strikingly dense pyramidal to rounded crown. Desirable specimen tree in the landscape. The flowers are highly fragrant and attractive to bees. The largest tree in North Dakota is 35 feet tall with a canopy spread of 32 feet.

**Leaves and Buds**
Bud Arrangement - No terminal buds. Lateral buds are alternate.
Bud Color - Reddish-brown in color.
Bud Size - Lateral buds are about 1/8 inch long.
Leaf Type and Shape - Simple, cordate or heart-shaped, oblique base.
Leaf Margins - Finely serrate.
Leaf Surface - Glabrous and slightly lustrous above, glabrous beneath with axillary tufts of brown hairs.
Leaf Length - 1¼ to 3 inches.
Leaf Width - 1¼ to 2½ inches.
Leaf Color - Dark green, bluish-green beneath; yellow fall color.

**Flowers and Fruits**
Flower Type - Borne in 5 to 7 flowered pendulous cymes, bearing pale greenish-yellow, leaflike bracts.
Flower Color - Creamy-white to pale yellow perfect flowers.
Fruit Type - Fruit is a small 1/5 inch nutlet, thin shelled, and without ribs.
Fruit Color - Brown to tan when mature.

**Form**
Growth Habit - Pyramidal when young, becoming rounded when mature.
Texture - Medium, summer; medium, winter.
Crown Height - 30 to 45 feet.
Crown Width - 20 to 30 feet.
Bark Color - Gray to brown, ridged and furrowed on older trees.
Root System - Wide spreading.

**Environmental Requirements**

**Soils**
Soil Texture - Grows well on deep, fertile, well-drained loam and clay soils.
Soil pH - 5.5 to 7.5.
Windbreak Suitability Group - 1, 3.

**Cold Hardiness**
USDA Zone 3.

**Water**
Intermediate tolerance to flooding. Not drought resistant. May develop leaf scorch under drought conditions.

**Light**
Full sun, but will tolerate some shade.

**Uses**

**Conservation/Windbreaks**
Medium height tree for farmstead windbreaks in eastern third of North Dakota.

**Wildlife**
Of little documented value.

**Agroforestry Products**
Wood - Light wood for carving, inner bark used in making baskets.
Food - Honey derived from flowers highly desired.
Medicinal - Used for indigestion, hysteria and nervous stomach.

**Urban/Recreational**
Used for specimen, boulevards and public parks. Its medium size permits using it on sites with limited space.

**Cultivated Varieties**
Bicentennial Linden (*Tilia cordata* ‘Bicentennial’) - Dense pyramidal and conical form.
Corinthian® Linden (*T. cordata* ‘Corzam’) - Compact pyramidal form.
Greenspire Linden (*T. cordata* ‘Greenspire’) - Most commonly planted cultivar, straight trunk and pyramidal form, patented.
Morden Linden (*T. cordata* ‘Morden’) - Has performed well in NDSU trials. Released by Morden Research Station in Manitoba.
Norlin™ Linden (*T. cordata* ‘Ronald’) - Hardy hybrid with rapid growth and larger leaves introduced at Jeffries Nursery Ltd., Portage la Prairie, Manitoba.
Rancho Linden (*T. cordata* ‘Rancho’) - Dense upright-oval selection.

**Related Species**
American Linden (*Tilia americana*)
Harvest Gold Linden (*T. x ‘Harvest Gold’) - A new Littleleaf Linden x Mongolian Linden (*T. mongolica*) hybrid with exfoliating bark introduced by Jeffries Nursery, Ltd., Portage la Prairie, Manitoba.
Hybrid lindens, e.g., ‘Dropmore’, ‘Wascaana’ and ‘Glenleven’ are derived from American Linden (*T. americana*) x Littleleaf Linden parentage. Hardy in Northern Plains.
Mongolian linden (*T. mongolica*)

**Pests**
No major pest problems known.