New Trees and Shrubs

Dr. Todd West NDSU Woody Plant Improvement Program

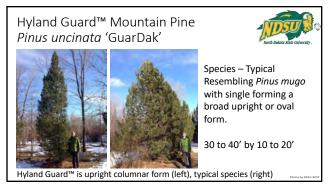


NDSU NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION

th Dakota State University .

2

Pine – Mountain





- A unique upright narrow pyramidal evergreen conifer that will reach a mature height that is taller than the currently available upright Mugo pine (Pinus mugo) cultivars. It originated from a population of Pinus uncinata collected from the Hrubý Jesenik mountain range of Eastern Sudetes in the northern Moravia region near the village of Rejvíz of the Czech Republic.
- Excellent choice for a taller vertical evergreen accent.
- · Resistant to needle-burn.
- Seed was obtained in 1972, 50 years ago!
 Phazasa by Gragues Pr

3





Arborvitae

5 6

North Pole® Arborvitae Thuja occidentalis 'Art Boe' USPP 22,174

- Columnar selection of 'Wintergreen'
- 15 by 5'
 More narrow form than Emerald Green.
- Excellent hardiness and retains its dark green winter foliage color
 Zone 3
- Selected by Art Boe of Faribault, MN
- Resistant to winter burn
- Tolernant of wet soil,
- Not tolerant of drought or deer





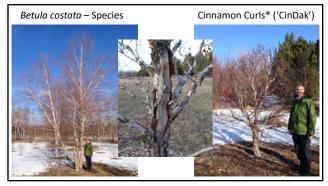


7

Birch



9 10





11 12





13 14



Birch TC liners typically do not grow 1st year after transplant and will put on growth 2nd year

Emerald Flare® starts growing 1st year



Northern Tribute[®] River Birch *Betula nigra* 'Dickinson'

- Superior adaptability to stresses of the Upper Midwest and Northern Plains.
- It has shown no signs of winter injury or iron chlorosis in alkaline soils and has performed well in compacted, dry soils, which is extremely atypical of the species and other selected cultivars.
- Available for the first time (2017) from Heritage Seedlings as TC liners and now Baileys and JFS.



15 16





Buckeye

17 18

Lavaburst® Buckeye Aesculus glabra 'LavaDak'

- First buckeye selection based
 - Narrow upright northern hardy Ohio buckeye selection.
- Mature size: 8 x 3.5 m (26 x
- Shorter internode growth than typical for the species.
 • Foliage shows greater
- resistance to leaf scorch.

 Available 2023 Heritage Seedlings and Liners



Lavaburst® Ohio Buckeye *Aesculus glabra* 'LavaDak'

19 20





21

Early Glow™ Buckeye Aesculus glabra 'JN Select'

- Early bright red fall color on scorch-resistant foliage and a near-seedless
- Medium size tree
- 35 x 35'
- Typical rounded buckeye form.
- Part shade tolerant





Coffeetree

Skinny Latte™ Coffeetree Gymnocladus dioicus 'Morton'

- Native
 Zone 4

 50' by 18'
 Seedless (male)
 Stiffly upright structural branches ascend vertically to form a remarkably narrow canopy and unique winter
 Silhouette.
 Originating from a seedling acquired by the
- Originating from a seedling acquired by the Morton Arboretum in 1958 Unique selection is an introduction of Chicagoland Grows®.



25 26





Crabpple

27 28

Snow Crystal™ Crabapple Malus 'JFS KW218MX'

- Zone 4
- 15' x 12'
- Distinctively compact, pyramidal form
- Bright white flowers smother the branches of this densely branched, symmetrical tree in spring.
- Yellow to golden orange fruits take the four-season show into the winter months





DISEASE RESISTANCE: Scab: Excel. Fireblight: Excel. Cedar-Apple Rust: Excel. Mildew: Excel.



29 30



Elm

31 32





33

Greenstone® Elm *Ulmus davidiana* 'JFS KW2UD'

- Zone 4
- 60 x 40'
- DED tolerant
- Doing very well at NDSU Research Arboretum
- Vigorous grower has proven to be the top performer among trees grown from seed collected at the northern edge of its native range in China.
- Its strong branches with open angles develop into an upright vase shape resembling that of the classic American elm.







35 36

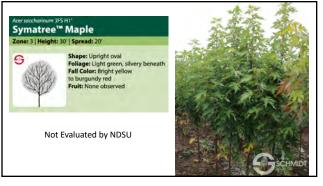
Maple - Silver

Symatree™ Maple Acer saccharinum 'JFS H1'

- A standout seedling, grown from seed collected from a witch's broom,
- Selected by Dr. William Hoch of the University of Wisconsi
- Uniquely compact growth habit and excellent branch structure that forms a remark-ably symmetrical, upright oval tree.
- Neither flowers nor seeds have been observed during 20 years of observation



37 38



Pine – Mugo

39 40







No "yellowing" of needles during winter months on Hyland Splendor®

Growth Comparison - Hyland Splendor® on left and 'Tannenbaum' on right Field Study shows 20% faster growth

41 42

Redbud



43 44

Thornless Honeylocust

Northern Sentinel™ Thornless Honeylocust Gleditsia triacanthos 'JFS GMorgenson1'

- Zone 4

- 45 by 25'
 Narrowly upright growth habit
 5torm resistant
 Great fit for street tree plantings where branches must be pruned up for traffic clearance.
- Found in South Dakota by plantsman Greg Morgenson, the parent has never been observed to have suffered ice or snow damage.
 Seedless, although JFS will not claim of its being seedless under all growing conditions.

46

45



Shrubs

48 47

Aronia

49

• 'Brilliantissima' • 6 to 8' by 6 to 8'

- Ground Hug™ • 8 to 14" by 3'
- Low Scape Hedger®
 3 to 5' by 2 to 3'
- Low Scape Mound®
 1 to 2' by 2'
- Low Scape Snowfire™ • 3 to 4' by 3 to 4'

50



Ground Hug™ Aronia Aronia melanocarpa 'UCONNAM012'

- Native
- 8 to 14" by 36"
- Glossy green foliage and white flowers in spring
- Red fall foliage with dark purple berries in fall
- Deer resistant
- Rain garden friendly (dry and wet)
- Pollinator Friendly



That is France Woman.

51 52

Low Scape Hedger® Aronia Aronia melanocarpa 'UCONNAM016'



- Native
- \bullet 3 to 5' by 2 to 3'
- Glossy green foliage and white flowers in spring
- Red fall foliage with dark purple berries in fall
- Deer resistant
- Rain garden friendly (dry and wet)





53 54

Low Scape Snowfire™ Aronia Aronia melanocarpa 'SMNAMPEM'

- Native
- 3 to 54' by 3 to 4'
- Heaviest bloomer
- Heaviest fruit set
- Deer resistant
- Rain garden friendly (dry and wet)

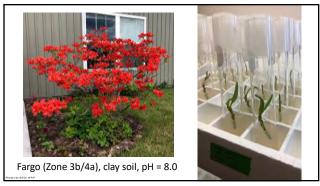


55 56

Azalea



57 58



Hydrangea - Panicle

59 60

Berry White Panicle Hydrangea Hydrangea paniculata 'Renba' PP28,509

- 6 to 7' by 4 to 5'
- Zone 3
- Full sun to part shade
- Strong, upright stems and large coneshaped flower panicles that stay upright.
- Starts out white in July then progresses to dark pink.
- Coloring occurs from the bottom and progresses to the top of the panicle
- First Editions



Little Lime Punch™ Panicle Hydrangea Hydrangea paniculata 'SMNHPH'

• Zone 3

62

- Full sun/part shade
- 3 to 5' by 3 to 5'
- Similar to Little Lime* hydrangea with its useful, compact stature and emerging lime-green blooms, but it differs as the flowers age to pink.



61



Puffer Fish™ Panicle Hydrangea Hydrangea paniculata 'NCHP1'

- Zone 3
- 3 to 5 by 3 to 5'
- Think of Puffer Fish™ panicle hydrangea (H. paniculata) as a larger, more puffed-up Bobo®, with fluffy white blooms that engulf the entire plant, nearly obscuring the foliage.
- The flowers open and mature to a pure white.
- As the blooms age, they turn lime green and, for a bit of surprise, a fresh sprig of white flowers emerges from the tip of the panicle



63 64



Lilac

Pinktini™ Preston Lilac Syringa × prestoniae 'Jeftin'

- More compact, tidier version of the classic 'Miss Canada' (10 x 8') lilac.
- Rich pink flowers bloom in late spring
- Introduced by Jeffries Nursery (Manitoba)
- Zone 2
- 4 to 5' tall and w to 4' wide
- New for 2020



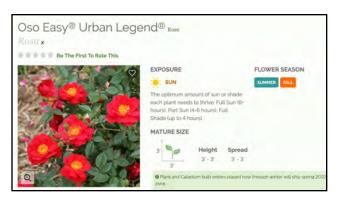


67 68

Rose



69





71 72

Serviceberry

Standing Ovation™ Serviceberry Amelanchier alnifolia 'Obelisk'

- Zone 3
- 15' by 5'
- Narrowly upright form of this North
- Good fit for tight spaces and a good candidate for hedging.

- Ediscaping
 profuse crop of small white flowers
 small, edible, tasty fruits if the birds don't beat you to it.
- Red to orange fall color

73 74



Spirea

75 76

Double Play® Candy Corn® Spirea Spiraea japonica 'NCSX1' PP #28,313

- Zone 4
- 2' by 3'
- Part shade tolerant
- New growth emerges bright candy apple red.
- As it matures, it turns pineapple yellow, and the new growth continues to emerge bright orange all season.
- Dark purple flowers in late spring/early summer,

77 78



Pink Sparkler™ Birchleaf Spirea Spiraea betulifolia 'COURISPI01' PP27,933

- 4' by 4'
- Zone 3
- Full sun, part shade
- Blooms large round pink flowerheads at the tips of its stems in early spring.
- Reblooms in fall with smaller blushing flowers that appear all up and down the stems at the leaf axis.
- Burgundy fall foliage.

Photo by NetPS Plant Finds

79





Virburnum - Arrowwood



81 82





83 84

Willow

Iceberg Alley® Sageleaf Willow Salix candida 'Jefberg'



- Native
- 5' to 6' by 5 to 6'
- Powdery silver foliage
- Blooms in spring with silver catkins, red stamens and nectar for pollinators.
- Silver catkins can make great cut flowers.
- Available through First Editions.



85

86

