

YARD & GARDEN REPORT

August 12, 2020

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The Empress of Autumn

A new empress from the Far East has been discovered. The empress has been described as radiant, glowing and beautiful. Although known to very few people today, this empress will be a sensation by autumn 2021.

We are talking about Northern Empress™ Japanese elm, one of the most exciting trees ever developed by the North Dakota State University Woody Plant Improvement Program.

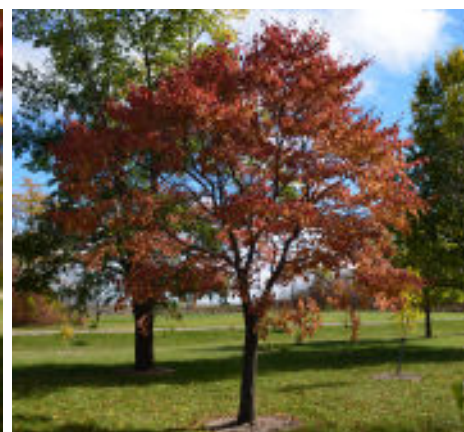
After 40 years of evaluation, this new cultivar will finally be available to the public next spring.

Northern Empress™ has many remarkable features, but its most special quality is its glowing fall color. While most elms turn yellow in fall, the leaves of Northern Empress™ turn apricot-orange, later turning burgundy-red. This color is both radiant and reliable from year to year.

We are all familiar with our state tree, the American elm. Northern Empress™ is different. This elm is much smaller, growing only 28 feet tall and 24 feet wide. It's well suited for smaller landscapes and boulevard plantings.

Dutch elm disease has decimated American elms, but Northern Empress™ is an Asiatic elm and shows genetic resistance to the disease. It also resists damage from elm leaf beetles and black leaf spot.

Northern Empress™ thrives in North Dakota. The tree can



Northern Empress™ is a small elm that glows in autumn.

withstand our cold winters and tolerates our higher pH soils. Northern Empress™ shows good to moderate tolerance to drought.

This elm is nearly seedless, creates minimal litter, and is easy to care for.

Go to Page 3 to learn how to order Northern Empress™

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Plant Health Care

Fruits and Vegetables



Smut on Corn

Tumor-like galls form on ears. Remove galls from planting. Avoid wounding stalks when cultivating. Remove or bury diseased stalks. Avoid 'Jubilee' and other susceptible cultivars.



Powdery Mildew

Spray with chlorothalonil, mancozeb or copper to protect new growth. Reduce humidity and increase air circulation. Thin the planting, if needed. Water only in morning. Use resistant varieties.



Scab on Potato

Bacteria create scars on tubers. Peel off scars. In future, prevent scab by keeping soil evenly moist for 4–6 weeks after flowers appear. Avoid fresh manure. Rotate crops. Use certified seed and resistant varieties. Among early reds, 'Norland' is better than 'Red Pontiac'.



Hornworm on Tomato

Giant, 4-inch-long, green caterpillars devour vines of tomato, nicotiana, potato and pepper. Only one or few larvae are found per plant. Remove and crush or toss into soapy water.



Radish in Autumn

Fall is the best time to grow radish. Radishes grown in spring get bitter as they mature under rising temps. Radishes grown in fall mature under cool temps, leading to milder, crisper roots.



Septoria Leaf Blight

Small (1/8-inch), numerous spots begin on lower leaves. Remove foliage that is infected and/or touching soil. Protect with fungicides (chlorothalonil, mancozeb or copper). Avoid overhead irrigation. Avoid splashing soil (the source of the fungus) onto vines.



Blossom Drop on Pepper

Fruit setting is diminished under temp extremes (day temps over 90°F or night temps above 70°F or below 55°F). Winds, moisture extremes, pests and heavy fruit loads reduce setting.



Apple Fruit Drop

Hot temps, heavy crop loads, summer pruning, and pests may cause fruit drop. Thin fruits in spring to 6 inches apart, irrigate regularly, mulch, and manage pests. NAA stop-drop sprays will help.

Plant Health Care

Landscapes



Early Fall Color

Premature color may be a sign of stress. It is often associated with drought stress, sunscald injury on trunks, mower injury, or roots that are strangling the trunk.

Apply wood mulch around trees to maintain soil moisture and protect trunks from reckless mowing. Irrigate when needed. Check for roots strangling the trunk; the absence of the trunk flaring out into the soil can be a sign of this strangulation.

Credits

Photos were made available under Creative Commons licenses specified by the photographers. **Page 1.** Todd West, NDSU (3). **Page 2.** UGA CAES/Extension, www.flickr.com/photos/ugacommunications/35878365196/; Tom Kalb, NDSU; Missouri Botanical Garden; <https://www.flickr.com/photos/cbede/3769527686/>; Blak-E, thehotpepper.com/topic/31589-yellow-falling-buds/; Tom Kalb, NDSU; All-America Selections; Muhammad Ali, www.flickr.com/photos/m_ali/10635519685/. **Page 3.** Coconino National Forest, www.flickr.com/photos/coconinonationalforest/3972416112/; Tom Kalb, NDSU (2); Florafinder.org, www.florafinder.org/LargePhotos/D3/Lonicera_tatarica-A980EA7AA3.jpg.

Written by Tom Kalb, who expresses gratitude to the Horticulture/Forestry Team for their contributions to this report.



Pause on Fertilizing

Lawns are not hungry now. Let's wait until early September when temps cool off and lawns get invigorated.

Stop fertilizing trees and shrubs, including roses. We do not want to stimulate new growth, which will be succulent and subject to injury over winter.



Leaf Scorch

Notice the brown edges. Newly planted trees are especially sensitive. Irrigate deeply when needed. Rock mulches generate heat and should be avoided; shredded bark or wood chips are better.



Toxic Fruits?

Fruits of Tatarian and most other invasive honeysuckles (*Lonicera*) in ND are orange/red and mildly toxic. To identify, honeysuckle leaves are opposite to one another. The berries are paired and have short stems. Never eat the fruits of a mysterious plant.

Northern Empress™

(continued from Page 1)

Bailey Nurseries, the leading supplier of trees to nurseries in North Dakota, will make Northern Empress™ available for the first time in 2021. Their production numbers were lower than planned, so it will be quite limited this first year.

You can contact your local nursery *this summer* to see if they can order a tree from Bailey for next spring. Production is expected to ramp up in future years, making Northern Empress™ more widely available.

The colors of autumn are already wonderful. This new empress will add her own special beauty to our landscapes in the future.

NDSU

EXTENSION

Weather Almanac for August 5–11, 2020

| Site | TEMPERATURE ¹ | | | | RAINFALL ^{1,4} | | | | GROWING DEGREE DAYS ^{1,5} | | | |
|--------------|--------------------------|------|-----|-----|-------------------------|------|-------|-------|------------------------------------|------|-------|------|
| | Aug 5–11 | | | | Aug 5–11 | | 2020 | | Aug 5–11 | | 2020 | |
| | Avg | Norm | Max | Min | Total | Norm | Total | Norm | Total | Norm | Total | Norm |
| Bottineau | 65 | 69 | 83 | 43 | 0.01 | 0.46 | 7.84 | 10.60 | 95 | 113 | 1442 | 1450 |
| Bowman | 69 | 71 | 97 | 46 | 0.74 | 0.28 | 6.34 | 9.41 | 110 | 125 | 1430 | 1473 |
| Carrington | 68 | 70 | 84 | 50 | 0.26 | 0.52 | 8.11 | 11.91 | 110 | 119 | 1564 | 1573 |
| Crosby | 65 | 68 | 89 | 40 | 0.00 | 0.35 | 6.93 | 9.37 | 101 | 108 | 1367 | 1333 |
| Dickinson | 70 | 70 | 96 | 48 | 0.03 | 0.37 | 5.67 | 10.45 | 118 | 120 | 1536 | 1464 |
| Fargo | 71 | 71 | 83 | 54 | 1.33 | 0.51 | 12.24 | 11.65 | 127 | 126 | 1799 | 1691 |
| Grafton | 68 | 68 | 83 | 51 | 0.25 | 0.67 | 14.44 | 11.20 | 109 | 108 | 1601 | 1464 |
| Grand Forks | 68 | 69 | 83 | 53 | 1.18 | 0.63 | 11.03 | 11.30 | 112 | 114 | 1636 | 1507 |
| Hazen | 68 | 72 | 96 | 44 | 0.85 | 0.39 | 9.93 | 10.54 | 108 | 126 | 1513 | 1616 |
| Hillsboro | 68 | 70 | 83 | 51 | 1.16 | 0.53 | 12.43 | 11.88 | 109 | 120 | 1667 | 1594 |
| Jamestown | 68 | 70 | 86 | 52 | 0.29 | 0.44 | 6.68 | 11.26 | 110 | 120 | 1559 | 1567 |
| Langdon | 66 | 66 | 81 | 49 | 0.47 | 0.63 | 9.99 | 11.77 | 94 | 96 | 1382 | 1249 |
| Mandan | 71 | 71 | 93 | 52 | 0.00 | 0.55 | 5.23 | 11.27 | 122 | 124 | 1617 | 1554 |
| Minot | 68 | 69 | 93 | 45 | 0.23 | 0.45 | 6.55 | 10.59 | 107 | 114 | 1463 | 1422 |
| Mott | 69 | 71 | 94 | 48 | 0.57 | 0.34 | 7.78 | 9.81 | 110 | 123 | 1481 | 1530 |
| Rugby | 67 | 68 | 88 | 46 | 0.02 | 0.53 | 7.12 | 11.85 | 104 | 109 | 1478 | 1452 |
| Wahpeton | 70 | 72 | 85 | 52 | 0.06 | 0.46 | 12.36 | 12.12 | 126 | 131 | 1729 | 1757 |
| Watford City | 70 | 70 | 93 | 47 | 0.00 | 0.34 | 5.94 | 9.19 | 114 | 120 | 1515 | 1492 |
| Williston | 70 | 73 | 94 | 48 | 0.00 | 0.36 | 4.12 | 8.82 | 116 | 132 | 1555 | 1670 |
| Wishek | 70 | 69 | 88 | 50 | 0.26 | 0.47 | 7.01 | 10.16 | 121 | 111 | 1535 | 1411 |

DAYLENGTH (August 12, McClusky, ND)²

Sunrise: 6:34 AM Daylength: 14h 26m
 Sunset: 9:00 PM Change since Aug 5: -20m

LONG-TERM OUTLOOKS³

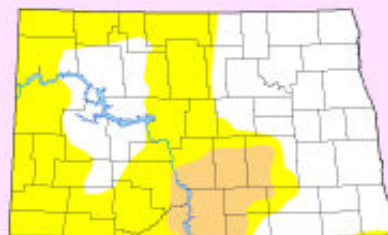
Aug 17–21: Temp.: Above Normal; Precip.: Below Normal
 Aug 19–25: Temp.: Above Normal; Precip.: Below Normal

^{1,2,3} Sources: North Dakota Agricultural Weather Network, www.sunrisesunset.com, and National Weather Service, respectively.

^{4,5} Rain data begin April 1. GDDs for garden vegetables are not available. GDD data in this table are for corn, which responds to temperature as most vegetables grown in gardens. Data begin May 1 with base minimum and maximum temperatures of 50 and 86°F, respectively.

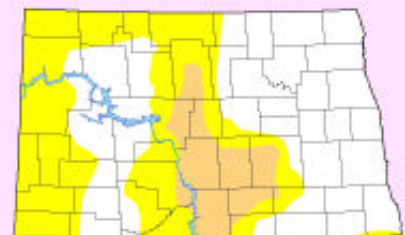
Drought Watch

Abnormally dry conditions remain in central and far western regions of North Dakota. Moderate drought conditions persist in our south central region, spreading northward over the past two weeks. Below normal rainfall in our state is expected over the next 6–14 days. Source: Drought Monitor and NOAA.



July 21, 2020

- Abnormally dry: 52% of state.
- Moderate drought: 10% of state.
- Severe drought: 0% of state.



August 4, 2020

- Abnormally dry: 49% of state.
- Moderate drought: 12% of state.
- Severe drought: 0% of state.