MAYBE YOU SHOULDN'T LISTEN TO THE GAME WHILE YOU'RE TRIMMING THE SHRUBS.
K-State John Pair Horticulture Center
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://droughtmonitor.unl.edu/

Released Thursday, August 16, 2012

Author: Michael Brewer/Liz Love-Brotak, NOAA/NESDIS/NCDC
U.S. Drought Monitor

High Plains

August 14, 2012
(Released Thursday, Aug. 16, 2012)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>D0-D4</th>
<th>D1-D4</th>
<th>D2-D4</th>
<th>D3-D4</th>
<th>D4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>4.48</td>
<td>95.52</td>
<td>86.05</td>
<td>76.97</td>
<td>49.64</td>
<td>15.52</td>
</tr>
<tr>
<td>Last Week 07/11/12</td>
<td>2.36</td>
<td>97.64</td>
<td>87.16</td>
<td>77.20</td>
<td>40.30</td>
<td>7.02</td>
</tr>
<tr>
<td>3 Months Ago 03/12/12</td>
<td>49.95</td>
<td>50.05</td>
<td>18.61</td>
<td>6.22</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Start of Calendar Year 1/1/2012</td>
<td>57.62</td>
<td>42.38</td>
<td>18.12</td>
<td>6.33</td>
<td>2.07</td>
<td>0.04</td>
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<tr>
<td>Start of Water Year 9/27/2011</td>
<td>70.00</td>
<td>29.91</td>
<td>17.44</td>
<td>11.97</td>
<td>6.22</td>
<td>2.96</td>
</tr>
<tr>
<td>One Year Ago 05/16/2011</td>
<td>57.95</td>
<td>42.15</td>
<td>9.54</td>
<td>0.51</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Intensity:
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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Author:
Michael Brown
NCDC/NOAA

http://droughtmonitor.unl.edu/
• Summers of 2011 & 2012
  – Ave 62 days above 90 degrees (12 above 100)
  – 2011 had 92 days above 90°F (53 above 100)
  – Hottest summer in Wichita recorded history
  – 2012 had 95 days above 90°F (36 above 100)
  – Warmest calendar year on record
  – Average annual precipitation is 32 inches
  – 2-year total was 13 in below normal
What about HEAT

- Additional stress
- Increases the plants demand for water
- Increases transpiration
- Makes Drought worse
- Plants have trouble cooling themselves
Thuja 'Green Giant'
Nursery Plants Sold in 1998

1. Red Maple  (1.7 mil)
2. Japanese Maple  (1.2 mil)
3. Ash  (1.2 mil)
4. Birch  (1.1 mil)
5. Norway Maple  (1.0 mil)
6. Poplar  (1.0 mil)
Nursery Plants Sold in 2009

1. Ash (4.3 mil)
2. Japanese Maple (2.7 mil)
3. Red Maple (1.8 mil)
4. Poplar (1.6 mil)
5. Birch (1.3 mil)
6. Willow (1.1 mil)
1. Red Maple (2.1 mil)
2. Japanese Maple (1.6 mil)
3. Birch (0.9 mil)
4. Willow (0.5 mil)
5. Sweetgum (0.5 mil)
6. Sugar Maple (0.5 mil)
   • ‘Oak’ (3.3 mil)
   • Maple, other (1.3 mil)
Poorly grown Autumn Blaze

Shipped & Held at Big Box Store

Planted July 4th weekend in new subdivision

Watered Daily & String Trimmer

Sunscald and bark cracking

Borers and Pathogens

Record heat & drought of 2011 - 2012

Tree Dies – SURPRISE!

Call Jason and ask what to spray to save tree
## Use Information

<table>
<thead>
<tr>
<th>Red Maples</th>
<th>% FHAB Infested</th>
<th>Sugar Maples</th>
<th>% Infested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burgundy Belle</td>
<td>37.5</td>
<td>Green Mountain</td>
<td>20.0</td>
</tr>
<tr>
<td>October Glory</td>
<td>20.0</td>
<td>Crescendo</td>
<td>11.8</td>
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<tr>
<td>Northwood</td>
<td>18.6</td>
<td>Commemoration</td>
<td>11.8</td>
</tr>
<tr>
<td>Red Sunset</td>
<td>15.8</td>
<td>Legacy</td>
<td>0.0</td>
</tr>
<tr>
<td>Sun Valley</td>
<td>15.0</td>
<td>Freeman Maples</td>
<td></td>
</tr>
<tr>
<td>Somerset</td>
<td>15.0</td>
<td>Autumn Fantasy</td>
<td>10.0</td>
</tr>
<tr>
<td>Brandywine</td>
<td>10.0</td>
<td>Sienna Glen</td>
<td>5.0</td>
</tr>
<tr>
<td>Autumn Flame</td>
<td>0.0</td>
<td>Autumn Blaze</td>
<td>0.0</td>
</tr>
<tr>
<td>Misc. Maples</td>
<td></td>
<td>A. truncatum</td>
<td>10.5</td>
</tr>
<tr>
<td>A. campestre</td>
<td></td>
<td>A. campestre</td>
<td>0.0</td>
</tr>
</tbody>
</table>

PLANT NURSERY

YAY! I'M GOING TO A NEW HOME!

MAYBE I'LL BE PLANTED IN A PEACEFUL PARK, OR A LEAFY GREEN BACKYARD.

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THE OTHER COAST

Rafeside
Arizona Cypress

Incense Cedar
Caddo Maple

Shantung Maple
Acer saccharum
'Green Mountain'
Acer saccharum 'Fairview'
Acer saccharum (Caddo Maple)
Leaf Temperature (C)

Photosynthesis (umol/m$^2$/s)

- **Caddo - Watered**
- **Caddo - Drought**
- **Sugar Maple - Watered**
- **Sugar Maple - Drought**
Baldcypress

(*Taxodium distichum*)
• Chinese Pistache
• Male
• Seedless
National Elm Trial

• 18 cultivars distributed to cooperators
• Bare root liners
• American Elms & Eurasian hybrids
• Planted and maintained according to local expertise
• 10-yr project
• Data collected annually
Kansas Favorites

• Accolade Elm
  – 100% Survival
  – Ave 1.6 ft growth/yr (lower end)
  – 0.7 in caliper/yr
  – Dark green leaves
  – Controlled growth habit
  – Morton Arboretum
Kansas Favorites

- New Harmony Elm
  - 100% Survival
  - 2.5 ft growth/yr
  - 0.6 in caliper/yr
  - Lighter green leaves
  - Narrow growth habit
  - Better branching
  - Minor lacebug
  - USDA
Kansas Favorites

• Princeton Elm
  – 100% Survival
  – 2.6 ft growth/yr (3rd)
  – 0.8 in caliper/yr
  – Very attractive as a young tree
  – Branch angles a concern
Kansas Favorites

• Danada Charm Elm
  – 100% Survival
  – 2.4 ft growth/yr (4th)
  – 0.7 in caliper/yr
  – Morton Arboretum
  – Fast growing
  – Dark green leaves
Kansas Favorites

• New Horizon Elm
  – 100% Survival
  – 3.2 ft growth/yr (1<sup>st</sup>)
  – 1.2 in caliper/yr (1<sup>st</sup>)
  – University of Wisconsin
  – Large and fast…early
  – Dense canopy
  – Elm flea weevil
Kentucky Coffeetree
*(Gymnocladus dioicus)*
Why do people carve their initials in the tree?

So that future generations can know who all the morons were.
Hot outside?

shut up