Dealing with Old World Bluestems in the Flint Hills

Invasive species harm ecological systems, damage economies and threaten human well-being. The estimated damage from invasive species worldwide totals more than $1.4 trillion.

Old World Bluestems (OWB):
Caucasian and yellow bluestems are warm-season perennial grasses brought to the United States in the early 1900s for use as forage and to control erosion.

These grasses are less palatable and nutritious to cattle than native warm-season grasses, and once established are difficult to control.
Like sericea lespedeza, OWBs have a competitive advantage over native grasses because they are less desirable to livestock. They also produce biochemicals to inhibit competition.

Interstitial areas:

Soil Alterations
P = 0.001
\( r^2 = 0.31 \)

P = 0.001
\( r^2 = 0.52 \)

**OWB Effects on Native Plant Diversity**

- Native species diversity reduced with increasing OWB cover
- Native species cover reduced with increasing OWB cover

**Strategies to deal with OWBs**

- Early detection
- Map during dormant season
- Spot treat with appropriate herbicide/rate
- Monitor treatment
- Repeat treatment as needed
- Educate others about risk and treatment options

**Mapping of Caucasian Bluestem at the Tallgrass Prairie National Preserve**
<table>
<thead>
<tr>
<th>Water</th>
<th>Arsenal (Imazapyr)</th>
<th>NIS</th>
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<tbody>
<tr>
<td>20 gal</td>
<td>10 oz.</td>
<td>2 oz.</td>
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<tr>
<td>50 gal</td>
<td>20 oz.</td>
<td>4 oz.</td>
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