Georgia Sod Producers
Inventory Survey – 2016

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The University of Georgia

Annual Sod Survey
2016 Statistics
☆ 22nd Survey – Waltz since 2002
☆ 17 Participants
  ✓ Internet & Phone
  ✓ 4 Grower Categories
    ① < 300 acres (8)
    ② 300 to 600 acres (3)
    ③ 600 to 900 acres (3)
    ④ > 900 acres (3)

Objective
1) Determine inventory levels
   ✓ first 5 months of the year
   ✓ assist producer with pricing
   ✓ assist contractors with estimating costs
2) Monitor price changes and other factors
   ✓ Freight rates & other delivery charges
   ✓ Market segments for product

Thank You
2016 Bermuda Supply

Projected Adequate to Excellent Supply

% Producers

* Projected supply for the first 5 months of the calendar year.

2016 Zoysiagrass Supply

Projected Adequate to Excellent Supply

% Producers

* Projected supply for the first 5 months of the calendar year.

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2016 Conclusions – Inventory

★ Bermudagrass supply increases
  ✓ 59% of all growers project excellent to adequate supply
  ➧ 2015 – 58% projected poor supply
  ↳ 64% with less than 600 acres predict excellent to adequate supply
  ↳ 50% with >600 acres predict poor supply
  ✓ 67% of growers with >900 acres predict adequate supply
Annual Sod Survey
2016 Conclusions – Inventory
★ Zoysiagrass supply
✓ 64% of all growers project excellent to adequate supply
✓ 63% with less than 600 acres predict excellent to adequate supply
✓ 67% with >600 acres predict adequate supply
⇒ 2 of 3 with >900 acres predict adequate supply

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2016 Conclusions – Inventory
★ Centipedegrass supply falls
✓ 50% of all growers project adequate supply
⇒ 2015 – 68% projected poor supply
⇒ 50% with less than 600 acres predict adequate supply
⇒ 50% of larger growers predict adequate supply
✓ 67% with >900 acres predict adequate supply

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2016 Conclusions – Inventory
★ St. Augustinegrass inventory falls
✓ 80% of all growers project a shortage
✓ Continued 2-year shortage
✓ 75% with >600 acres predict poor supply
★ Tall Fescue
✓ Adequate (87%) supply among all 4 grower groups
2016 Turfgrass Costs

<table>
<thead>
<tr>
<th>Turfgrasses</th>
<th>2015</th>
<th>2016</th>
<th>Change</th>
<th>2015</th>
<th>2016</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>--- Cents / ft² ---</td>
<td>%</td>
<td>--- Cents / ft² ---</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bermudagrass</td>
<td>22.6</td>
<td>25.5</td>
<td>12.8</td>
<td>27.8</td>
<td>31.7</td>
<td>14.0</td>
</tr>
<tr>
<td>Zoysiagrass</td>
<td>38.5</td>
<td>42.6</td>
<td>10.7</td>
<td>44.1</td>
<td>49.4</td>
<td>12.0</td>
</tr>
<tr>
<td>Centipedegrass</td>
<td>23.4</td>
<td>26.9</td>
<td>15.0</td>
<td>30.1</td>
<td>33.9</td>
<td>12.6</td>
</tr>
<tr>
<td>Tall Fescue</td>
<td>28.0</td>
<td>29.3</td>
<td>4.6</td>
<td>31.9</td>
<td>34.9</td>
<td>9.4</td>
</tr>
<tr>
<td>St. Augustinegrass</td>
<td>37.6</td>
<td>39.3</td>
<td>4.5</td>
<td>43.6</td>
<td>45.3</td>
<td>3.9</td>
</tr>
</tbody>
</table>

* Delivered price includes freight and pallets.

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2016 Conclusions – Price

★ Overall – increases for all species

✓ Bermudagrass
  ➔ Historic prices at 31.7¢ / ft²
  ➔ Previous high was 27.8¢ / ft² in 2015

✓ Centipedegrass
  ➔ Historic prices at 33.9¢ / ft²
  ➔ Previous high was 30.1¢ / ft² in 2015

Annual Sod Survey

2016 Conclusions – Price

★ Price Expectations

✓ Bermudagrass – 53% forecast to remain steady
✓ Zoysiagrass – 64% foresee stable prices
✓ Centipedegrass – 100% remain constant
✓ Tall fescue – 100% remain constant
✓ St. Augustinegrass – 83% foresee stable prices
### 2016 Freight Rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Range</th>
<th>Average</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>3.00 – 4.50</td>
<td>3.70</td>
<td>-1.1</td>
</tr>
<tr>
<td>2015</td>
<td>2.00 – 5.56</td>
<td>3.74</td>
<td>16.9</td>
</tr>
<tr>
<td>2014</td>
<td>1.00 – 5.50</td>
<td>3.20</td>
<td>0.3</td>
</tr>
<tr>
<td>2013</td>
<td>1.00 – 6.00</td>
<td>3.19</td>
<td>7.8</td>
</tr>
<tr>
<td>2012</td>
<td>0.50 – 5.38</td>
<td>2.96</td>
<td>13.6</td>
</tr>
</tbody>
</table>

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### Turfgrass vs. Fuel Cost

#### Price Delivered Turfgrass vs. Average Annual Fuel Cost

- Avg. Grass Price
- Retail Gasoline Prices
- Retail No 2 Diesel Prices

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>cents / square foot</td>
<td>10.0</td>
<td>15.0</td>
<td>20.0</td>
<td>25.0</td>
<td>30.0</td>
<td>35.0</td>
<td>40.0</td>
<td>35.0</td>
<td>40.0</td>
<td>35.0</td>
<td>40.0</td>
</tr>
<tr>
<td>$ / gallon</td>
<td>1.00</td>
<td>1.50</td>
<td>2.00</td>
<td>2.50</td>
<td>3.00</td>
<td>3.50</td>
<td>4.00</td>
<td>3.50</td>
<td>4.00</td>
<td>3.50</td>
<td>4.00</td>
</tr>
</tbody>
</table>

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### Annual Sod Survey

#### 2016 Conclusions – Freight & Delivery

- **Overall**
  - Fuel prices declined
- **Since 2006**
  - Sod price – 56% increase (25.0 to 39.0 ¢ / ft²)
  - Fuel No 2D cost – 2% increase ($2.65 to $2.70 / gal)

? Where go from here?
### 2016 Certified Growers

<table>
<thead>
<tr>
<th>Year</th>
<th>%</th>
<th>n*</th>
<th>%</th>
<th>n*</th>
<th>Average</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>88</td>
<td>15</td>
<td>87</td>
<td>13</td>
<td>3.8</td>
<td>1.0 – 7.0</td>
</tr>
<tr>
<td>2015</td>
<td>76</td>
<td>19</td>
<td>55</td>
<td>11</td>
<td>3.0</td>
<td>1.0 – 6.0</td>
</tr>
<tr>
<td>2014</td>
<td>54</td>
<td>19</td>
<td>47</td>
<td>9</td>
<td>2.0</td>
<td>2.0 – 3.0</td>
</tr>
<tr>
<td>2013</td>
<td>57</td>
<td>24</td>
<td>54</td>
<td>13</td>
<td>3.0</td>
<td>1.0 – 10.0</td>
</tr>
<tr>
<td>2012</td>
<td>60</td>
<td>24</td>
<td>58</td>
<td>14</td>
<td>1.8</td>
<td>1.0 – 4.5</td>
</tr>
</tbody>
</table>

* Total number of respondents 17, 26, 35, 42, and 40 for 2016, 2015, 2014, 2013, and 2012 respectively.

### Annual Sod Survey

#### 2016 Conclusions – Certification

- **Overall**
  - ✓ 87% charge a premium
  - 😊 The story for 2016
    - ✓ Average price increased 27% from 2015
    - ✓ 3.8 ¢ / ft²
    - ✓ Range from 1.0 to 7.0 ¢ / ft² ($5 - $35 / 1000)

#### 2016 Conclusions – Increase in Production

- **Overall**
  - ✓ Did not ask the loss of production question in 2016
  - 😊 Forecast – Continued increase in production (57%)
  - ✓ Acreage added – 82% of producers
    - 😊 14 of 17 growers added acreage (121 acre avg.)
    - 😊 3 producers increase 200+ acres
    - 😊 Increase of 1,700 acres into production over past 3 years
Annual Sod Survey

Reasons

🌟 Industry Constriction

✔️ Fewer producers

⊙ 2007 to 2015 – 45 to 27 producers (-40%) – GCIA

✔️ Fewer acres

⊙ 2007 to 2015 – 11,977 to 6,555 acres (-45%) – GCIA

⊙ 2007 to 2014 – 50,595 to 24,526 acres (-52%) – FGVR

Ga. Turfgrass Production

2014 Farm Gate Value Estimates

🌟 Value – $104.3 million

⊙ Down -36% from 2007

⊙ Ranks 24th from 60 commodities

✔️ 13th in 2007

⊙ Up 15% from 2013

🌟 24,562 acres

⊙ Down -52% from 2007

⊙ Up 9% from 2013

2016 Industry Segments

<table>
<thead>
<tr>
<th>Industry Segments</th>
<th>2016 Avg (%)</th>
<th>2015 Avg (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lndsc Contractors</td>
<td>1 43.1</td>
<td>1 48.5</td>
</tr>
<tr>
<td>Sports / Athletic Fld.</td>
<td>2 18.9</td>
<td>5 16.8</td>
</tr>
<tr>
<td>Brokers</td>
<td>3 15.5</td>
<td>2 26.7</td>
</tr>
<tr>
<td>Golf Courses</td>
<td>4 14.7</td>
<td>7 13.3</td>
</tr>
<tr>
<td>Existing Developers</td>
<td>5 12.7</td>
<td>4 17.9</td>
</tr>
<tr>
<td>Garden Centers</td>
<td>6 12.2</td>
<td>8 8.3</td>
</tr>
<tr>
<td>Homeowners</td>
<td>7 11.4</td>
<td>6 16.6</td>
</tr>
<tr>
<td>Lndsc Designers</td>
<td>8 10.5</td>
<td>3 23.7</td>
</tr>
</tbody>
</table>

* Average percentage of total sales.
Important Dates in 2016

UGA Turfgrass Research Field Day – August 4
EDGE Expo – December
For other local programs contact your CEA

Thank You

Visit
www.GeorgiaTurf.com