2015, Annual Georgia Sod Producers Inventory Survey

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In November, the Georgia Urban Ag. Council, formally Georgia Sod Producers

Association, conducted their twenty-first consecutive survey of sod producers. The purpose of
the survey was to determine the status of inventory levels and projected price changes for spring
2015. Twenty-six producers participated by online and telephone survey, representing farm sizes
which were less than 300 acres (15 participants), 300 to 600 acres (5 participants), 601 to 900
acres (3 participants), and more than 900 acres (3 participants).

The survey obtained estimates of the inventory for bermudagrass, zoysiagrass, centipedegrass, St. Augustinegrass, and tall fescue based on estimated sales for the first five months of 2015 as excellent (more than 10% of demand), adequate (equal to demand), and poor (more than 10% shortage). Pricing information included farm price and price for truckload orders to the Atlanta area or within 100 miles of the farm, all costs were reported as price per square foot of sod.

Inventory Levels

Bermudagrass is being grown by 100% of the surveyed producers. Just five years ago inventory levels were relatively high, but multiple factors (e.g. drought, limited light, prolonged spring, loss of acreage, etc.) have contributed to a declined since. Forty-two percent of the producers rated their inventory as adequate to excellent this year, the lowest ever measured (Figure 1). For 2015, 58% of all bermudagrass producers projected having less than adequate supplies, compared with 48% last year and 19% in 2013. No growers with greater than 900 acres expect an adequate bermudagrass supply, while only 50% of producers with 600 acres or less project having sufficient inventories. Regardless of grower category, bermudagrass supply will

remain low.

According to this year's survey, the number of producers growing zoysiagrass (65%) was an increase over the last three years. Of the producers responding, 53% estimate an adequate to excellent inventory, which is constant with last year's estimate (Figure 2). Only 2007 had fewer growers anticipating a suitable supply. For early spring 2015, 47% of the zoysiagrass producers project a shortage of grass.

Of the 26 producers surveyed 12 (46%) were growers of centipedegrass. Thirty-three percent of the growers had adequate to excellent inventory compared to 65% in 2014, and 74% in 2013. Two of three growers with greater than 900 acres expect a shortage in centipedegrass supply. Sixty-seven percent of all centipedegrass growers anticipate a shortage during 2015.

St. Augustinegrass is being grown by 5 of the 26 producers surveyed. Sixty percent reported an insufficient supply, including the two growers with greater than 600 acres in total turfgrass production.

Consistent with previous years, tall fescue was grown by a similar percentage of producers (20% to 34%). Eighty-nine percent of tall fescue producers reported excellent to adequate inventory, which continues an eleven-year trend of sufficient tall fescue supply. The amount of tall fescue sod grown in Georgia meets demand.

Sod Prices

For 2015, the on-the-farm and delivered prices for all five grass species were greater than 2014. Grass prices are forecast to increase 23% to 41% over last year's prices (Table 1). Figure 3 provides a five-year perspective of sod prices, all grass species are at historic levels.

The average price per square foot for a truckload of bermudagrass delivered to the Atlanta area, or within 100 miles of the farm, is expected to rise 37% (Table 1). The 2015 survey indicated prices varied from 19.0 cents to 44.0 cents, with an average price of 27.8 cents (Table

2). The average price in 2014 was 20.3 cents per square foot and ranged from 14.0 cents to 32.0 cents.

The 2015 average price for a delivered truckload of zoysiagrass increased from 2014 levels. The average price of delivered zoysiagrass in 2015 was 44.1 cents and ranged from 35.0 to 56.0 cents. In 2014 zoysiagrass prices ranged from 24.0 to 48.0 cents and averaged 35.8 cents.

Centipedegrass prices rose markedly. Prices in 2015 ranged from 22.0 cents to 45.0 cents and averaged 30.1 cents, compared to 2014 when the average delivered price was 23.5 cents and ranged from 14.0 to 32.0 cents.

The 2015 delivered price of tall fescue increased (32.9%). This year, prices ranged from 23.0 cents to 38.0 cents, with an average of 31.9 cents. Both the low- and high-end prices were greater than 2014.

The price of delivered St. Augustinegrass increased (26.0%) in 2015. The average price of delivered St. Augustinegrass in 2015 was 43.6 cents and ranged from 38.0 to 45.0 cents. In 2014, St. Augustinegrass prices ranged from 24.0 to 40.0 cents and averaged 34.6 cents.

Regarding grower price expectations, no grower is forecasting a price decrease in 2015. Eighty-one percent of bermudagrass producers expect increased prices during the first five months of 2015. This is an increase from 2014 where 72% expected rising prices. For zoysiagrass, 53% of producers anticipate higher prices during the first five months of 2015; 47% of producers forecast steady prices. For centipedegrass, 58% of producers expect prices to remain constant in 2015. Relative to precious years, only 56% of tall fescue producers anticipate constant prices. Eighty percent of St. Augustinegrass producers expect prices to rise; 20% think prices will remain constant.

Certification

2015 had 19 producers representing 76% of the respondents with some certified grass on

their farm (Table 3). Fifty-five percent of these growers charge a premium for certified grass. The remaining growers either do not place an added value on certified sod or do not participate in the certification program. This survey indicates an eight-year trend of increasing average prices for certified grass (Table 3). In 2015, the typical extra cost ranged from 1.0 to 6.0 cents per square foot and averaged 3.0 cents. This translates to between \$5.00 and \$30.00 on a 500 square foot pallet. Disregarding 2013 which had an anomaly in value of certified grass, for 2015 the high end of the range was up relative to the past five years. The lower end however fell back to 2013 levels. The average price rising indicates more certified producers are increasing the value of their grass. The consumer should consider this a nominal cost to insure varietal purity of a perennial species.

Freight and Unloading Fees

Freight rates per mile shipped to Atlanta, or within 100 miles of the farm, are up from 2014 (Table 4). For 2015, costs ranged from \$2.00 to \$5.86 and averaged \$3.74; this is a 16.9% increase from the 2014 average (\$3.20). Freight costs as a part of price quotes for customers was reported by 88% of respondents. Eleven respondents (42%) reported charging an unloading fee in 2015 compared to 16% in 2014. The minimum unloading fee (\$40) increased in 2015 but most producers charge between \$75 and \$100. Nearly all producers (96%) will make additional drops on a load. The low-end charge was down to \$20 in 2015, compared to \$35 in 2014. The high-end charge increased to \$125. The average cost for additional drops in 2015 was \$63, a slight increase from 2014 (\$58).

Fuel Surcharge

Nearly doubling from 2014, 23% reported adding a fuel surcharge to a load in 2015. This is still less than reported in 2008 (46%) when No. 2 diesel costs were similar to 2015 levels (Figure 4). In 2014 the number of producers adding this charge was 12%. This year, the average

surcharge was \$60 per load, the same as last year. Figure 4 compares the average sod price for all species grown with the average annual retail price for gasoline and diesel fuel.

Markets

The 26 producers that participated in this survey estimated that the highest amount of sod was sold to landscape contractors (Table 5). This has not changed over the nine years this question has been included in the survey. In 2014, brokers were the fourth largest industry segment for sale of turfgrass but moved into the second position this year. The group with the greatest gain over last year was sales to landscape designers, moving from the 8th rank to the 2nd. The group with the greatest decline was sales to homeowners, going from the 2nd rank to the 6th.

Acreage in Production

In the last five year's survey, amid reports of farms being sold, acres being taken out of turfgrass production, and long-time producers going out of business, ancillary questions were included. The first was "Did you reduce sod production (acres) in 2014?" On this year's survey none of the respondents answered that they removed acreage on their farms and none are expected for 2015. Last year, 17% of the respondents answered that they removed some acreage during the 2013 growing season. Approximately 50% of the growers indicated they plan to add acres in 2015. Growers with less than 600 total acres in production makeup the preponderance of producers looking to add acreage. This group of producers could potentially account for nearly 1,200 acres coming into production during 2015. However, this addition would not affect the market until 2016 or 2017.

Summary

From this survey it appears that prices for all species are increasing. Additionally, inventory for all warm-season species is expected to be lower than commonly experienced for the first five months of the year.

Observations and trends over the past fourteen years are that growers with the greatest

volume (i.e. >600 acres) of grass tend to have the greatest impact on inventory and are a barometer as to where the market is heading on prices. There have been years where the forecast between smaller and larger growers was inconsistent, but that was not the case for 2014 or 2015. Although total acres in turfgrass production is beginning to rebound, over the past eight years the number of sod producers has declined, as have the total acres in turfgrass production. These interrelated factors are contributing to an overall decrease in inventories and increased prices. It will simply take time for inventory to recover although growers are looking to put acres back into turfgrass production. In the meantime, prices will likely remain high and potentially rise further.

Don't let sticker shock curtail projects, plan ahead. If projects are planned for 2015 where sod will be needed, it would be prudent to get price quotes regularly. Not all producers will "book" or presale grass at a locked price, but if they will, contacting them early may help ensure availability and the best price.

Table 1. Change in prices from spring 2014 to 2015.

	On-the-farm			Delivered *		
			%			%
Turfgrasses	2014	2015	Change	2014	2015	Change
	Cents / ft ²			Cents / ft^2		
Bermudagrass	16.0	22.6	41.3	20.3	27.8	36.9
Zoysiagrass	30.6	38.5	25.7	35.8	44.1	23.2
Centipedegrass	17.7	23.4	32.3	23.5	30.1	28.1
Tall Fescue	22.8	28.0	22.8	24.0	31.9	32.9
St. Augustinegrass	30.2	37.6	31.1	34.6	43.6	26.0

^{*} Delivered price includes freight and pallets. The delivered price included the Atlanta area or within 100 miles of the farm.

Table 2. Comparison of on-the-farm prices with delivered prices, 2015.

	On-the-farm		Delivered *		
Turfgrasses	Price (avg.)	Range	Price (avg.)	Range	
		Cents	/ ft ²		
Bermudagrass	22.6	15.0 - 34.0	27.8	19.0 - 44.0	
Zoysiagrass	38.5	29.0 - 53.0	44.1	35.0 - 56.0	
Centipedegrass	23.4	19.0 - 32.0	30.1	22.0 - 45.0	
Tall Fescue	28.0	22.0 - 36.0	31.9	23.0 - 38.0	
St. Augustinegrass	37.6	35.0 - 40.0	43.6	38.0 - 45.0	

Delivered price includes freight and pallets. The delivered price included the Atlanta area or within 100 miles of the farm.

Table 3. Percentage of survey respondents that grow certified grass and the additional charge for certified grass.

	Grower Certified	Grow	Growers that charge a premium for Certified Grass			
Year	%	\mathbf{n}^*	%	\mathbf{n}^*	Average	Range
					cen	nts
2015	76	19	55	11	3.0	1.0 - 6.0
2014	54	19	47	9	2.0	2.0 - 3.0
2013	57	24	54	13	3.0	1.0 - 10.0
2012	60	24	58	14	1.8	1.0 - 4.5
2011	65	30	40	12	1.6	1.0 - 5.0

^{*} Total number of respondents 26, 35, 42, 40, and 46 for 2015, 2014, 2013, 2012, and 2011 respectively.

Table 4. Historical freight rate for sod deliveries.

Year	Range	Average	% Change
	\$/m	ile	
2015	2.00 - 5.86	3.74	16.9
2014	1.00 - 5.50	3.20	0.3
2013	1.00 - 6.00	3.19	7.8
2012	0.50 - 5.38	2.96	13.9
2011	1.00 - 4.00	2.60	-3.7

^{*} Delivered price includes freight and pallets. The delivered price included the Atlanta area or within 100 miles of the farm.

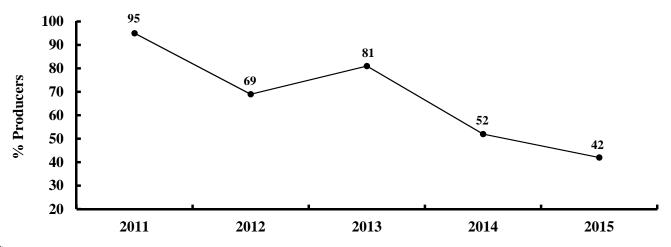
Table 5. Ranking of industry segments for sale of turfgrass.

_	2015		2014	
Industry segments	Rank	Average*	Rank	Average*
Landscape Contractors	1	48.5	1	39.0
Brokers	2	26.7	4	7.8
Landscape Designers	3	23.7	8	1.8
Existing Developers	4	17.9	7	2.8
Sports / Athletic Fields	5	16.8	3	9.5
Homeowners	6	16.6	2	14.0
Golf Courses	7	13.3	4	7.8
Garden Centers	8	8.3	6	4.8

Average percentage of total sales.

Figure 1. Percentage of bermudagrass producers projecting adequate to excellent supply for the past five years.

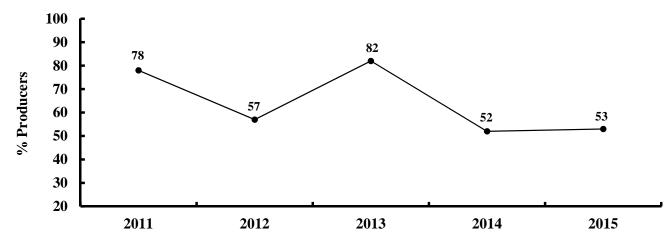
Projected Adequate to Excellent Bermudagrass Supply



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

Figure 2. Percentage of zoysiagrass producers projecting adequate to excellent supply for the past five years.

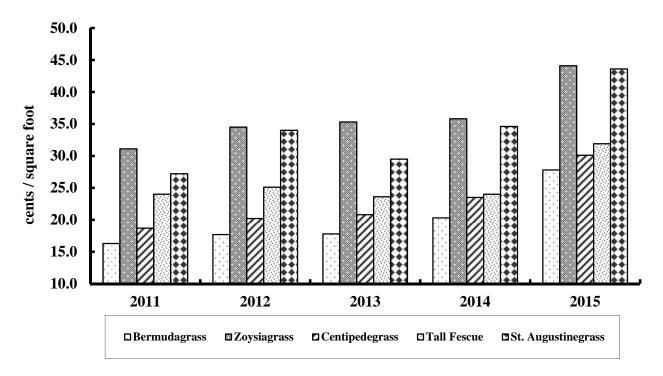
Projected Adequate to Excellent Zoysiagrass Supply



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

Figure 3. Historical perspective of sod prices in Georgia, 2011 to 2015.

Five Year History of Delivered Turfgrass



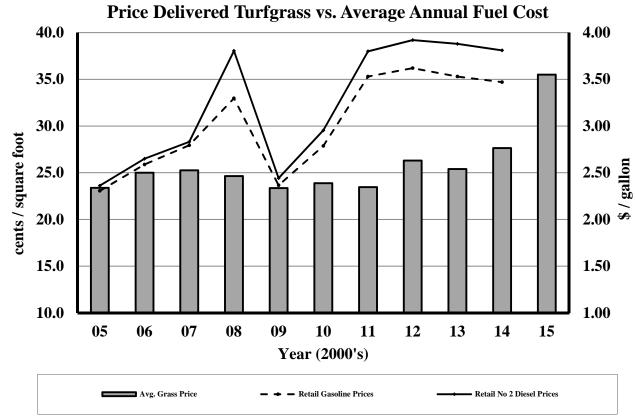


Figure 4. Ten year comparison of average sod price with fuel cost.

* Average grass price was calculated for the five turfgrass species commonly grown in Georgia.

^{**} Average annual retail fuel cost for the Lower Atlantic region was found at www.eia.doe.gov. For 2014, the average retail fuel cost was calculated through December 1.

Bullet Points from the 2015 Sod Producers Inventory Survey

- 1. Supply of warm-season turfgrasses is low, regardless of grower category.
- 2. The delivered price for all grasses is expected to increase.
- 3. Grass prices are at historic levels.
- 4. Growers anticipate rising prices in 2015.
- 5. 2015 continues an eight year trend of increasing average prices for certified grass.
- 6. Freight rates per mile shipped to Atlanta, or within 100 miles of the farm, will increase.
- 7. Growers reported adding a fuel surcharge nearly doubled from 2014.
- 8. No grower expects to remove acres from turfgrass production.
- 9. More turfgrass acreage will come into production in 2015.
- 10. The primary markets for Georgia sod are landscape contractors and brokers.
- 11. Get price quotes regularly.
- 12. If possible "book" or lock prices to ensure availability and price.