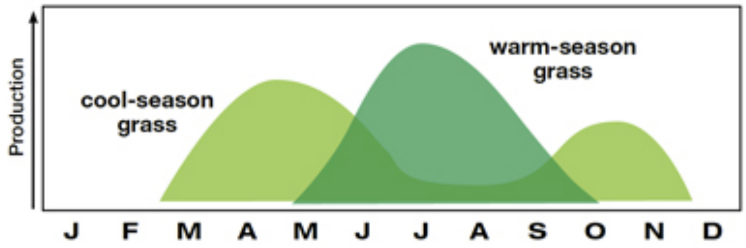
Forage and Biomass

Native warm-season grasses and forbs provide increased summer forage production.

Increased summer forage production – Native warm-season grasses grow during the warmest months of the year when cool-season grasses are in a slump, providing excellent forage when cool-season grasses are at their lowest quality and quantity.



Improved summer weight gains – Research in a variety of locations east of the Rocky Mountains show Average Daily Gains (ADG) greater than on cool-season grasses during the same summertime grazing period.

Different classes of livestock under differing grazing regimes showed a range of gains:

Tennessee:	1.12 lbs. to 2.65 lbs. ADG[1]
Kansas:	1.23 lbs. to 2.28 lbs. ADG[2]
Nebraska:	1.40 lbs. to 2.80 lbs. ADG[3]
Eastern Piedmont:	average 2.0 lbs. ADG[4]

Reduced acres needed for hay production[5] – Native grasses typically out yield cool-season introduced grasses by 1 to 3 tons per acre, depending upon species and site quality. In addition, appropriate harvest time for several species of native warm-season grasses is later in the growing season than cool-season grasses, reducing conflicts with other on-farm activities. Hay harvest is also after typical rainy spring weather, allowing for better hay curing and higher quality hay because it is less likely to be rained on once cut.

Yields for Hay Production - Kentucky

	Annual Yield (tons/ac)		Fertility	Harvests
Species	Range	Average	lb./ac	#/year
Big Bluestem	2.6 – 6.0	3.9	60	1 – 2
Indiangrass	2.5 – 5.9	4.6	60	1 – 2
Eastern Gamagrass	3.1 – 9.6	4.9	60	1 - 2
Switchgrass (Alamo)	2.0 – 11.6	5.3	60	1 - 2
Tall Fescue (KY31)	2.1 – 4.8	3.1	180	4

Data from University of Kentucky variety trials conducted at Lexington, KY. 2009 Native Warm Season Perennial Grass Report

Reduced inputs and drought tolerant[6] – Generally, native warm-season grasses require one-third to one-half as much water and nitrogen to produce a unit of dry matter compared to tall fescue. Properly managed native warm-season grasses have deep, extensive root systems and build soil organic matter which increases the water holding capacity of the soil allowing the plants to resist the impacts of drought much more effectively than introduced cool-season grasses.

Native warm-season grasses are a logical choice for biofuel.

Native vegetation doesn't compete with food crops as sources for biomass fuel production – Competition between food and non-food uses drives prices up, resulting in both higher food prices and higher biofuel prices. Native vegetation doesn't compete with food crops, eliminating the inflationary cycle caused by competing interests.

No annual cultivation/planting cycle – Native warm-season grasses are perennial and do not require annual cultivation and planting.

Native grasses out yield many biomass crops – Native grasses harvested for biomass yield from 4.6 to over 12 tons per acre, depending upon species, nutrients, environmental and edaphic conditions; yields over 8 tons per acre are not uncommon.[7,8]

Native vegetation sequesters carbon – Over 95% of the carbon storage in native vegetation is below ground[9], meaning when harvested the majority of sequestered carbon is retained.

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