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Horse Hay Production as a Cash Crop for Cattlemen

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In recent years hay production in Florida increased to a \$78 million crop. In addition to beef and dairy cattle much of the hay crop is produced for horses. Horse owners require a tender, high quality product that does not get rained on during the hay making process. Rain tends to turn hay brown decreasing forage quality. Poor hay making conditions during the summer may be the reason why the state only grows about one-third of the 300,000 tons of hay Florida horses eat annually. High quality horse hay sells from \$3.50 to 4.50 / bale at the farm. Horse hay is generally harvested every 28 to 35 days producing high quality forage. To obtain high quality hay must be sweet smelling, dark green, weed free and average about 15% crude protein (CP) and 55 to 60% TDN.

When baling horse hay, moisture must be down to 12 - 13% to eliminate the formation of mold spore's. Generally growers can produce four or possibly five harvests and still eliminate hay harvests during the rainy season (late June to late September). Normally, hay fields are fertilized on February 1 and harvested in mid-March, re-fertilized after each cutting and harvested in early to mid-May, mid-June (if weather permits), early to mid-October and late November.

Only two grasses Florona stargrass and Florakirk bermudagrass and possibly Jiggs and coastal bermudagrasses will respond to early spring (February) fertilization. Grasses must not be sensitive to day length and start growing immediately after the last frost when temperatures warm up. The above grasses are all vegetatively planted and should be established on a clean seed bed.

The five basic steps to successful perennial pasture grass establishment from vegetative cuttings on south Florida flatwoods can be located on the EDIS web site at <http://edis.ifas.ufl.edu/AG125>.

Management of bermudagrass and stargrass: Both Florona stargrass and Florakirk bermudagrass produce high dry forage yields (6 - 7 ton/acre) during the spring and fall hay making season, excluding forage grown during the rainy season. Forage nutritive value is excellent when allowed 4 to 5 week rest period between hay cuts. Florona stargrass is very persistent and will tolerate repeated hay harvests at about a 4 inch stubble. This grass could be used for hay or grazing.

Florakirk bermudagrass is used for hay only. Under grazing Florakirk develops leaf spot and tar spot diseases. Under continuous hay harvest these diseases are removed every 4 to 5 weeks with each hay harvest, having no effect on forage quality. Fertility programs for stargrass and bermudagrass consist of 75-30-60 lb/acre N-P₂O₅-K₂O plus micro nutrients per hay harvest.

Palatability and forage nutritive value of both bermudagrass and stargrass decreases rapidly after a freeze. Both grasses will express a slow decline in CP (-3 percentage units) up to 4 weeks following a freeze. However, digestibility will drop immediately 5 - 6 percentage units 1 week after a freeze and a total of 15 - 18 units 4 weeks after a freeze. Little difference exist in CP between the two grasses harvested at the same time, averaging about 12 - 15 % when harvested at a 4 to 5 week frequency. However, a large difference exists in digestibility with Florakirk bermudagrass averaging about four percentage units higher than Florona stargrass when harvested at the same time.

Bermudagrass and stargrasses respond well to N, yielding about 70 lb dry forage /acre/year/lb of N, when harvested at a 4 to 5 week frequency. All grasses when managed under an intensive hay harvesting system will need to be re-established about every 7-10 years. Remember when growing horse hay is horse owners demand a high quality product. For more information call 863-735-1314.