

TECHNICAL NOTES

U.S.D.A. SOIL CONSERVATION SERVICE, Gainesville, Florida



AGRONOMY

BIOLOGY

PLANT MATERIALS RANGE

WOODLAND

AGRONOMY-FL-40

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ECONOMICS OF PERENNIAL PEANUT PRODUCTION

Producers are often hesitant to establish perennial peanut because of the cost of planting material. The large quantity needed (up to 80 bu./acre) and the relatively high cost per bushel require a large initial investment. As more people have rhizomes available as planting material, the price should decrease somewhat. Perennial peanut rhizomes will always be expensive relative to other species for several reasons: a) it takes three years of establishment before rhizomes can be dug; b) expensive herbicides are often needed to control perennial grasses that contaminate peanut rhizomes; c) the equipment needed to dig rhizomes is specialized and expensive.

The high initial capital investment is balanced out by greater long-term profits. If the \$200-\$500 per acre establishment cost of perennial peanut is amortized over 10 years, the cost is more reasonable. The annual cost is much lower if spread over the life span of the crop, since it will maintain a stand indefinitely if properly managed. After establishment, the annual maintenance cost of perennial peanut is much lower than for bermudagrass or bahiagrass. These grasses often need 200 pounds per acre of nitrogen to yield the same amount of forage as perennial peanut, which requires no nitrogen. At current nitrogen prices, grass fertilization would cost almost \$100 per acre each year.

In addition to lower fertilizer costs, other maintenance requirements are lower. Coastal bermudagrass often must be sprayed to control armyworms. To date, perennial peanut has not suffered economic damage from insects, diseases, or nematodes.

Because of the small acreage of perennial peanut, the market is not well-defined and the price varies widely. High quality peanut hay (green color and. no mold) can compare to good alfalfa hay in value. Florida horse owners pay an average of \$6.90 per 60 pound bale, equivalent to \$230 per ton, for alfalfa hay. When sold by the ton, alfalfa normally costs at least \$150 per ton. Perennial peanut can yield 3 to 6 tons of hay per acre, depending on soil type and rainfall. The net returns for different levels of production and hay prices are given below:

Table 1. Potential net profit per acre for perennial peanut hay at various yields and selling prices.

3	\$97.86	_____
4	73.40	_____
5	58.72	
6	48.93	

Potential Net Profit Per Acre

1/

Yield	Production Cost/ton	<u>Selling Price</u>				
		\$100/ton	\$120/ton	\$150/ton	\$180/ton	\$230/ton
3	\$97.86	\$ 6.42	\$ 66.42	\$156.42	\$246.42	\$396.42
4	73.40	106.40	186.40	306.40	426.40	626.40
5	58.72	206.40	306.40	456.40	606.40	856.40
6	48.93	306.42	426.42	606.42	786.42	1086.42

1/ Production costs include cash expenses (at 13% interest) and fixed cost (with establishment amortized over 10 years) totaling \$293.58 per acre per year.

Perennial peanut silage and hay is equivalent to corn silage or alfalfa hay in feeding value. These crops are commonly purchased for over \$100 per ton of dry matter. The long life low maintenance cost and high value of perennial peanut can equate to a very economical forage crop.