



# Buying and Selling Burley Quota: What Factors Should Farmers Consider?

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## Introduction

The Farm Poundage Quota Revisions Act (FPQRA) of 1990 gives all burley tobacco quota holders the right to sell their quota to any active grower within the same county. Until this act was passed, the sale of quota (separate from the land it was assigned) was prohibited except for a brief period during the early 1980s when corporations, schools, churches, utilities and other institutions not directly involved with agriculture were required to sell their quotas.

Before this legislation, burley quota holders who elected not to produce their crop were forced to rent or lease their quota to another grower in the same county. Given the uncertainty of future lease prices and availability of tobacco quota, many growers were reluctant to make large capital investments to expand their future burley production base. The US burley tobacco industry hopes that program changes under the FPQRA will allow the transfer of burley quota to those growers who have the desire and capacity to increase production; this will provide a mechanism to reduce the critical underproduction of US burley quota which has constrained US burley expansion significantly in recent years.

## Farm Poundage Quota Revisions Act of 1990

Five burley tobacco program changes specifically designed to address the chronic underproduction of burley quota problem were signed into law on November 15, 1990 under the title of the "Farm Poundage Quota Revisions Act of 1990." The following program changes will take effect for the 1991 and subsequent crops:

- 1) *Permits the sale of burley quota from one farm to another farm within the same county. The purchase will be limited to 30% of the buyer's existing basic allotment per year or 20,000 pounds/per year, whichever is greater.*
- 2) *Increases the leasing limitations per farm from its current maximum of 15,000 pounds to 30,000 pounds.*
- 3) *Requires quota holders to lease or attempt to grow their allotment two out of three years or forfeit allotment beginning in 1994 for the 1991-1993 crops. This replaces the current one out of five year rule.*
- 4) *Prohibits the division of farm quota (unless the division is among family members) resulting in quotas less than 1000 pounds.*
- 5) *Requires a state-wide referendum in*

*Tennessee to allow leasing of quota across county boundaries.<sup>2</sup>*

Previous research at the University of Kentucky has analyzed the potential effects of various policy changes included in the 1990 FPQRA, as well as alternative policy changes.<sup>3</sup> This publication concentrates on the provision which allows the sale of burley quota.

## Burley Quota Sales' Provisions

The specifics of this change are as follows:<sup>4</sup>

- 1) An individual may purchase quota each year; however, the maximum annual purchase/year is limited to 30 percent of the existing quota for the buyer's farm, or 20,000 pounds, whichever is greater. For most producers, the 20,000 pound limit will be the annual constraint. In order for the 30 percent constraint to take effect, a quota owner would need more than 66,667 pounds of basic quota (i.e., 30% of 66,667 is 20,000 pounds). In 1990, less than 1 percent of burley quota holders had more than 25,000 pounds of basic quota.
- 2) A buyer must be an "active" producer or a person who is certified

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<sup>2</sup> This referendum was passed in January 1991 with 62% of Tennessee burley growers voting in favor of the referendum.

<sup>3</sup> For further details see "Analyzing the Proposal to Increase the Burley Leasing Limit," "Evaluating Changing the 103% Maximum Allowable Marketings of Burley Effective Quota," "Analyzing the Underproduction of Burley Tobacco Quota," and "Policy Alternatives and Consequences Addressing the Underproduction/Undermarketings of Burley Tobacco." Copies are available from the authors.

<sup>4</sup> Potential buyers and sellers of burley quota should check with their local county Agricultural Stabilization and Conservation Service (ASCS) office for complete details.

as becoming an active burley tobacco producer. An active producer is any person who has shared in the risk of production in at least one out of the previous three crop years. According to the FPQRA, a person will be considered to have shared in the risk of production if (A) the investment of such person is at least 20 percent of the proceeds of the sale of such crop; (B) the investment of such person's return on such investment is dependent solely on the sale price of such crop and (C) such person may not receive any of such return before the sale of such crop.

3) Non-quota farms will be allowed to purchase quota as long as the owner of the farm receiving quota is considered to be an active burley tobacco producer or is certified as becoming an active burley tobacco producer. In addition, persons may purchase quota who do not own a farm as long as they meet the active burley tobacco producer requirements and agree to assign the quota to a specific farm.

4) No sale of burley tobacco quota from a farm shall be permitted if any sale of quota to the same farm has been made within the three immediately preceding crop years. Furthermore, a farm may not purchase quota if the farm sold quota during the current or 2 preceding years. This is to prevent speculative buying and selling of quota.

5) The marketing quota determined for any farm subsequent to such sale shall not exceed an amount determined by multiplying the farm yield by 50 percent of the acreage of cropland in the farm.

### What is the Value of Burley Quota?

A burley allotment gives a quota holder the right to sell tobacco in a market where prices are generally supported at levels above the cost of production. Therefore, burley quota is a valuable asset. Although a permanent market for quotas did not exist until the 1990 FPQRA, the lease market provided active producers the ability to rent quota from non-producers within their county for each crop year. Thus, the lease market provided an indication of the value of quota for a particular county during a specific year.

Beginning in 1991, burley producers who want to expand production beyond their own current quota now must decide to lease or buy additional burley quota. There are both similarities and differences between determining lease prices and quota prices. The sale price of quota within an individual county will be determined like the lease prices: it will be based on the supply and demand of quota within the county. Therefore, producers in counties where lease prices are "high" can generally expect to pay more for quota than in neighboring counties experiencing lower lease rates. However, leasing quota is a short-term decision,

whereas purchasing quota is a long-term decision. Therefore, the amount that an individual quota holder would be willing to pay for burley quota depends not only on expected net returns of purchased quota during the immediate crop year, but also on the expected net returns over the life of the investment. Therefore, one must take into account the time value of money.

The time value of money principle recognizes that the value of a dollar is worth more today than the value of a dollar in the future. This is true because one could invest a dollar today in a savings account, certificate of deposit (CD), or any other interest-bearing asset and receive a larger sum in the future. Therefore, future returns generated from an asset must be "discounted" back to the present to discover the current or "present" value of the asset.

This explanation is represented by the following equation:

$$PV = \sum_{i=1}^n \frac{Y_i}{(1+r)^i} = \frac{Y_1}{(1+r)^1} + \frac{Y_2}{(1+r)^2} + \dots + \frac{Y_n}{(1+r)^n}$$

Table 1 shows the present value of quota given an assumed 12% discount rate with various constant net where PV is the present value of a future income stream,  $Y_i$  is the expected net return associated with the asset for year  $i$ ,  $r$  is the discount rate, and  $n$  is the planning horizon.

Expected net returns will be equivalent to the expected market price less all expected production, overhead, management and land costs. Thus, the net returns used in this analysis reflect the net return to quota.<sup>5</sup> The discount rate chosen should reflect the rate of return on assets with similar risks. Given that most individuals would consider investing in burley quota "riskier" than investing in savings accounts, CD's or government securities, the discount rate should be higher than the current interest rate on savings accounts or CD's to reflect a risk premium.

The planning horizon should indicate the length of time the investor perceives the quota will generate returns. For many burley producers, the length of time they expect the tobacco program to last will represent the planning horizon (since quota has no value without a tobacco program). Assuming a 5-year planning horizon with a discount rate of 12% and expected net returns of \$.40/lb per year, the present value of a pound of burley quota would be:

$$PV = \frac{\$.40}{1.12^1} + \frac{\$.40}{1.12^2} + \frac{\$.40}{1.12^3} + \frac{\$.40}{1.12^4} + \frac{\$.40}{1.12^5} = \$1.44$$

Thus, a producer paying \$1.44/lb of quota would obtain a 12% rate of return on a quota purchase if he could obtain a net return of \$.40/lb for each year in the 5-year planning horizon.

<sup>5</sup> Technically, economists refer to these net returns as economic rents, which refers to the payments received that are in excess of that amount necessary to keep the factors of production employed (i.e., keep producing tobacco).

**Table 1: Value of Burley Quota - 12% Discount Rate and Constant Annual Returns**

<i>Expected Net Returns (\$/lb/yr)</i>	<i>Planning Horizon (years)</i>							
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>
.10	.09	.17	.24	.30	.36	.57	.68	.75
.20	.18	.34	.48	.61	.72	1.13	1.36	1.49
.30	.27	.51	.72	.91	1.08	1.70	2.04	2.24
.40	.36	.68	.96	1.21	1.44	2.26	2.72	2.99
.50	.45	.85	1.20	1.52	1.80	2.83	3.41	3.73
.60	.54	1.01	1.44	1.82	2.16	3.39	4.09	4.48
.70	.63	1.18	1.68	2.13	2.52	3.96	4.77	5.23
.80	.71	1.35	1.92	2.43	2.88	4.52	5.45	5.98
.90	.80	1.52	2.16	2.73	3.24	5.09	6.13	6.72
1.00	.89	1.69	2.40	3.04	3.60	5.65	6.81	7.47

**Table 2: Value of Burley Quota-- Net Returns of \$0.40/lb/year**

<i>Discount Rate</i>	<i>Planning Horizon (years)</i>							
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>
7%	.37	.72	1.05	1.35	1.64	2.81	3.64	4.24
8%	.37	.71	1.03	1.32	1.60	2.68	3.42	3.93
9%	.37	.70	1.01	1.30	1.56	2.57	3.22	3.65
10%	.36	.69	.99	1.27	1.52	2.46	3.04	3.41
11%	.36	.69	.98	1.24	1.48	2.36	2.88	3.19
12%	.36	.68	.96	1.21	1.44	2.26	2.72	2.99
13%	.35	.67	.94	1.19	1.41	2.17	2.58	2.81
14%	.35	.66	.93	1.17	1.37	2.09	2.46	2.65
15%	.35	.65	.91	1.14	1.34	2.01	2.34	2.50
20%	.33	.61	.84	1.04	1.20	1.68	1.87	1.95

returns/year and planning horizons. The intersection of the assumed constant net return of \$0.40/lb/year with a 5-year planning horizon yields the \$1.44/lb quota value determined above.<sup>6</sup>

Table 1 indicates the sensitivity of quota value to changes in net returns and the investor's planning horizon. Obviously the higher the expected net returns and the longer the planning horizon, the more valuable burley quota becomes (i.e., the more an individual would be willing to pay for quota). The 15% decline in the average price support under the 1985 Tobacco Improvement Act decreased producers' expected net

returns and thus value of quota. However, survey results indicate that the revised burley program increased producer's expectations of the continuation of the tobacco program, which likely had a positive impact on the value of quota.

If you assume a 10-year planning horizon and expected net returns of \$0.40/lb, then the value of quota increases to \$2.26/lb compared to \$1.44/lb with a 5-year planning horizon. Similarly, changes in costs of production alter the value of burley quota. Table 1 illustrates that (assuming a 5-year planning horizon and a 12% discount rate) a "low" cost producer achieving net returns of \$0.60/lb would be willing to pay \$2.16/lb for quota; in comparison, a "high" cost producer with expected net returns of \$0.20/lb would only be willing to pay \$0.72/lb. In order to purchase quota many farmers will be faced with the decision to repair/replace existing curing barns. Obviously, this will reduce their expected net returns.

Table 1 is based on a 12% discount rate for alternative values of the planning horizon and expected net

<sup>6</sup> In reality, these net returns will likely vary from year to year. A constant net return is assumed to simplify the analysis. Producers who expect changes in market prices to differ from changes in costs should place these expected net returns into the present value formula and calculate the present value. For example, if a producer expects net returns to be \$0.50 in year 1 and decline by \$0.10/lb/year, given a 12% discount factor, the present value will be:

$$PV = \frac{\$.50}{1.12^1} + \frac{\$.40}{1.12^2} + \frac{\$.30}{1.12^3} + \frac{\$.20}{1.12^4} + \frac{\$.10}{1.12^5} = \$1.12$$

returns. The discount rate selected should indicate the rate of return the producer requires in order to take on this investment. The rate will vary over time and across investors. Therefore, it is useful to examine the value of burley quota given different discount rates.

Table 2 shows the value of burley quota given different discount rates and planning horizons, assuming a constant expected net return of \$0.40/lb/year. As the discount rate increases in response to higher market interest rates, the opportunity cost of possessing quota increases. As a result, the demand (and thus value) for quota falls as investors will generally shift capital to less risky interest bearing securities. Thus, expectations of future interest rate changes will affect the price that producers will be willing to pay for quota.

Another important factor in determining the value of quota is expected changes in future quotas. For example, if an individual bought 1000 pounds of quota during the limited burley sales in 1982, the successive quota cuts from 1982 to 1987 left only 693 pounds of quota in 1988. However, the large quota increases in 1989 and 1991 resulted in a quota exceeding the initial 1000 pounds. Thus, the total returns of buying quota depend not only on the net returns from selling tobacco, but also on the "windfall" gains or losses from quota changes.

### **Research/Survey Results on the Value of Burley Quota**

In 1982, limited (involuntary) burley sales were allowed under the no-net-cost legislation. Data on the required quota sales during the early 1980s are limited. However, the Kentucky Department of Fish and Wildlife Resources sold a number of quotas by sealed bids during 1982 and 1983. According to these sales transactions, accepted bids on individual parcels ranged from \$1.02 to \$5.25/lb, with a statewide average of \$2.83/lb.

A University of Kentucky study indicates that the value of the burley quota has fluctuated during the 1970s and 1980s in response to changes in the burley tobacco program and the burley tobacco economy.<sup>7</sup> According to the study, the (nominal) value of burley quota in Kentucky peaked in 1976 at \$7.22/lb, declined to \$1.71/lb by 1982, rebounded following the no-net-cost legislation in 1982, and began declining in 1984 in response to a growing uncertainty of the tobacco program. By 1985 (the last year contained in the study), the estimated value of burley quota was \$3.57/lb. With the reduction in market prices and increasing costs of production since 1985, the value of burley quota is likely to be lower than the 1985 estimate, although improved producers' perception of the

longevity of the program has likely cushioned the decline.

Current indications of farmers' opinion on the value of burley quota comes from various survey projects undertaken at the University of Kentucky in recent years. Table 3 presents data from the Kentucky Farm Change Survey on lease prices and farmers' opinions on the value of burley quota. The values for the sell/lb variable in Table 3 come from responses to the question "If the sale of burley quota were allowed, how much would you sell a pound of your tobacco quota for today?" Note that the average for sell/lb may be inflated since the data include individuals who have no desire to sell quota.

Table 3 indicates that the average state-wide sell/lb in 1988 was \$3.52/lb, 18 cents higher than the results

**Table 3: Farm Change Survey--Value of Burley Quota, 1986-1988**

	<i>Lease Rate(\$/lb)</i>		<i>Sell Rate(\$/lb)</i>	
	<b>1986</b>	<b>1988</b>	<b>1986</b>	<b>1988</b>
State Avg.	.42	.43	3.34	3.52
Eastern	.37	.39	3.99	4.00
Bluegrass	.44	.45	3.39	3.30
Central	.49	.49	3.21	3.09
Western	.35	.36	2.66	3.51
Lease in	.42	.42	3.40	4.15
Lease out	.48	.49	2.81	3.20
Small	.44	.47	2.86	2.75
Large	.42	.42	3.75	4.22

from the 1986 survey. The data illustrate the differences in the sell/lb for different areas of the state and types of producers. Notice that the Eastern region reported the highest value for sell/lb in both 1986 and 1988. This may be the result of the lack of alternative enterprises and off-farm opportunities for Eastern Kentucky farmers.

There was a large differential in the sell per pound variable reported by those producers who lease in burley quota and those who lease-out burley quota. Farmers who lease-out quota do not value quota as high as those who are willing to pay for the right to grow burley tobacco. One explanation is that people who lease out quota may favor the opportunity to sell quota rather than find someone to lease it to each year. As expected, producers with large quotas seemed to value quota more than producers with small quotas in their 1988 responses.

The high sell/lb prices for 1986 and 1988 raise the question whether quota sales would greatly redistribute quota in the short-run. The 1988 survey revealed that farmers would only be willing to pay \$1.77/lb on average for burley quota. Given the large differential

<sup>7</sup> See Vantreese, Reed, and Skees "Mandatory Production Controls and Asset Values: A Case Study of Burley Quotas," available from the authors.

between this price and the selling prices in the table above, it appears that, initially, quota market transactions would be limited.

Results of a 1990 leasing survey at the University of Kentucky suggest that the gap between the price a quota owner would sell quota for and the price a producer would buy quota for is narrowing. The results indicate that the average price a quota holder would ask for burley quota is \$1.96/lb, while the average price a producer would pay for a pound of burley quota is \$1.27/lb. Although there is a differential in the average values, responses ranged as high as \$4.00/lb to buy quota and as low as \$.50/lb to sell quota, suggesting that some transactions would take place. As market forces and other policy changes come into play (i.e., produce or lease two out of three years or lose quota), the sell/lb and the pay/lb prices will move toward each other.

### *Flue-Cured Quota Sales*

In evaluating potential burley quota sales, it is interesting to examine the impact that quota sales have had on the flue-cured industry. The 1982 no-net-cost legislation that permitted limited sales of burley quota instituted the permanent sale of flue-cured quota. The provisions for selling flue-cured quota in the 1982 act are similar to those for the 1990 FPQRA. Both laws mandate that only active producers can buy quota and a farm's quota cannot exceed 50 percent of eligible cropland.

Like the 1990 burley act, additional legislation was signed in 1983 which instituted the forfeiture of flue-cured quota for a farm in which poundage has not been leased or attempted to be grown in two of the preceding three years. This legislation also abolished the lease and transfer of flue-cured quota beginning in 1987. Since the passage of these legislative changes, 221 million pounds of flue-cured quota has been sold (Table 4).

With an average basic quota in recent years of around 800 million pounds, a high percentage of the total flue-cured quota has been sold. The large amount of quota sold in 1986/87 coincides with the abolition of flue-cured leasing, the beginning of the produce two out of three years or lose your quota rule, and passage of the 1985 Tobacco Improvement Act. The consolidation of flue-cured quota has been accelerated by these events along with the adoption of mechanized harvesting.

A 1984 South Carolina survey asked flue-cured quota purchasers to identify the most important reasons for purchasing quota.<sup>8</sup> In order of importance, here are the top five reasons: **1)** to match tobacco acreage with available barns and equipment, **2)** easier to buy than to continue renting, **3)** begin tobacco

production, **4)** rental rates too high, and **5)** could buy quota without purchasing land.

These reasons were considered the most important for selling quota: **1)** forced to sell by being a non-active producer, **2)** uncertainty of tobacco quota program, **3)** ending tobacco production, **4)** easier to sell quota than to rent quota, and **5)** did not have barns and equipment.

**Table 4: Flue Cured Sales of Basic Quota**

<i>Year</i>	<i>Million Pounds</i>	<i>% Of Basic Quota Sold</i>
82/83	17.4	1.9
83/84	33.9	4.2
84/85	27.8	3.6
85/86	16.4	2.2
86/87	79.2	11.2
87/88	30.0	4.0
88/89	16.2	1.8
Total	221.0	

(Source: USDA, Tobacco Situation)

### *Characteristics of Potential Burley Quota Buyers and Sellers*

Several of the reasons cited above for buying and selling flue-cured quota will likely be relevant for burley tobacco quota holders under the 1990 FPQRA. The characteristics of burley quota owners who lease-out quota are similar to those of flue-cured quota owners who sold their quota. Survey results at the University of Kentucky suggest that quota owners who lease-out quota are older, have smaller quotas, and have more off-farm employment opportunities than those who lease-in quota. In addition, a large percentage of quota holders are retired or absentee land owners. Current producers who lease-in quota have indicated the desire to match poundage with available barn space. Quota purchases would eliminate lease price uncertainty and the burden of finding quota to lease each year.

Although there are similar characteristics between burley and flue-cured quota owners and producers, major differences exist between the burley and flue-cured tobacco industries, which will limit the sales of burley quota in the short-run. Obviously, the large quota increases in 1989 and 1991 have escalated quotas to a point where many producers do not have the resources (e.g., labor, barn space, mechanization) available to handle any more quota. Given the long-run uncertainty of the tobacco industry, many burley

<sup>8</sup> See Dangerfield, "Calculating Flue-cured Tobacco Quota Value," available from the authors.

producers desiring to expand will continue to lease-in poundage as lease prices fall in response to excess supplies of quota available in many counties.

This contrasts with the flue-cured industry, which abolished permanent lease and transfer of flue-cured in 1987. Thus, while flue-cured quota owners who were not active producers were forced to sell their quota or forfeit it, burley quota owners will still have the option to lease-out quota. Once the two out of three year rule becomes effective, there will be added pressure to sell quota, but the leasing-out option will still be available.

Cross-county leasing in Tennessee will also affect the rate of quota consolidation. Many Tennessee burley producers in high lease-price counties may find it more profitable to lease-in pounds from low lease-price counties instead of purchasing high-valued quota within their county.

### ***Other Effects of Quota Sales***

The implementation of burley quota sales will have various indirect effects on several items important to burley farmers. The impact on lease prices is difficult to ascertain. Sale transactions between quota holders and producers affect both the supply and demand of available poundage in the lease market. Obviously, leasing supply declines as quota-holders who decide not to produce their quota may now sell their quota instead of leasing it. Reductions in the availability of lease supplies will put upward pressure on lease prices.

However, reduced leasing demand (because buyers of quota are likely to be the same individuals who were active participants in the leasing market in previous years) should put downward pressure on lease prices. In counties where a large number of quota holders will be affected by the two out of three year provision, lease prices may decline as quota holders choose to accept lower than desired lease prices to maintain possession of their quota.

Landowners and lenders will be very interested in the effect of quota sales on land values. Research at the University of Kentucky has suggested that from 1980 to 1985 burley quota constituted between 12 and 15 percent of Kentucky land values. With the improved outlook of the tobacco program, the impact of quota on land prices may have increased in recent years. According to the preliminary regulations of the FPQRA, the lien holder must agree in writing to the sale of quota.

Quota holders must also consider the impact of quota sales on personal income taxes. According to the IRS, quotas are intangible property rights and thus are not subject to depreciation. The cost of the quota or

allotment is its basis. Gains or losses from quota sales will be taxed as ordinary income. The IRS also points out that if you acquire a quota with the purchase of land, you must allocate part of the purchase price to quota in order to calculate potential gains or losses to that quota if you decide to sell that quota in future years.

Currently, there is some debate on what constitutes the basis of quota that was a part of land purchases before quota sales' transactions were allowed. If the basis is assumed to be zero, then the full receipt of the quota sale would be taxed as ordinary income, which obviously may have large impacts on the tax liability of sellers of large tobacco bases. Purchasers of a large volume of quota could jeopardize their cash flow position, especially if future burley prices do not increase relative to production costs or if the quota declines. Potential buyers must evaluate the availability and cost of financing quota purchases. Finally, additional fixed costs of production must be taken into consideration when purchasing quota. As barn conditions/equipment deteriorate over time it will require additional future replacement costs associated with the purchased quota.

### ***Summary and Conclusions***

Sales of burley quotas represent a major change in the US burley tobacco program. This program change provides a permanent mechanism to place a larger volume of burley quota into the hands of farmers who fully intend to produce the quota--and thus provide a means to reduce the industry's critical underproduction problem.

The value of burley quota will depend on the expected net returns to quota during the investment period, the required rate of return, and the length of the planning horizon. Thus, expectations of the future profitability of burley production, the rate of return on alternative investments, and expectations of the length of duration of the tobacco program will play vital roles in determining the value of burley quota. Besides the value of quota, farmers will also be concerned with the tax, cash flow, and land value impacts of quota sales transactions.

Burley farmers are likely to react slowly to this policy change given recent large quota increases, labor and barn constraints, and continued uncertainty of the tobacco program and industry. Most of the initial sales will likely be made by absentee land-owners, widows, and generally small quota holders. Other program changes (i.e., 2 out of 3 year provision, Tennessee cross-county leasing) will also impact sale prices and volume of sale transactions.