

Tobacco Economics in the Post-Buyout Era

Will Snell, Laura Powers and Greg Halich

The economic landscape for tobacco production in the post-buyout era has been different compared to what growers experienced during the decades of the federal tobacco program. No longer do growers benefit from the price support system which assured a minimum price for their tobacco, a guaranteed buyer, and minimal price volatility within and across marketing seasons. However, growers are not faced with production (quota) constraints and the extra cost of renting in additional production rights, along with quota instability and all the uncertainty that existed with regards to the continued existence of the former federal tobacco program.

The movement to production contracts by most growers has had the tendency to reduce some of the risks, but also adds new risks. Contracting growers have a legal agreement with a buyer which states the company will purchase their crop (as long as they fulfill contracting terms), along with a pre-marketing price schedule for a given set of grades/qualities established and determined solely by the contracting company. However, the post-buyout marketing environment requires growers to pay more attention to various quality-enhancing production and management practices (e.g., chemical/fertilizer applications, disease control, curing management, market preparation) as there is no longer a market where the government, through the cooperatives, purchases tobacco rejected by the companies. Furthermore, contracting growers under the current marketing environment do not have access to a third party to settle any grade disputes.

Presently, the existence of a few remaining auction markets provide an alternative system for those growers who opt to not be bound by a contract or as an outlet for contracted tobacco rejected by the tobacco companies. However, these markets do not guarantee a buyer or an established set of prices predetermined prior to marketing. Grower prices and buyer acceptance of tobacco under both systems should be fairly consistent and favorable during periods of short supplies relative to demand. However, when supplies become ample relative to demand, growers will experience more price volatility as buyers become more selective in their purchases. Excess supplies across marketing seasons will induce buyers to consider various options such as lowering contract prices, decreasing contract volume, eliminating contract growers, and/or a reduction in participation in the auction marketing system.

More competitive prices and the potential for improved quality during the post-buyout era should make U.S. tobacco more attractive in the domestic and international marketplace. Despite continued declines in U.S. cigarette consumption, domestic burley use has risen in the post-buyout era as manufacturers respond favorably to more competitive U.S. burley prices by using a higher percentage of U.S. burley in their blends. Outside the U.S., improved competitiveness of U.S. leaf, continued political and economic instability in some competing tobacco producing nations, along with the potential growth in sales of American-blended cigarettes in some traditional and emerging markets should allow U.S. burley exports to remain relatively strong. However, the ability to take advantage

of both domestic and international demand opportunities in the post-buyout era will hinge critically on the ability of the U.S. burley tobacco industry to provide adequate supplies. Alternatively, dark tobacco growers should continue to benefit from a sustained expansion in domestic smokeless tobacco consumption, limited off-shore competition, and favorable price incentives offered by smokeless tobacco manufacturers. One wildcard in the dark tobacco outlook is how the entry of cigarette manufacturers in the smokeless tobacco sector may affect leaf production and marketing requirements.

In summary, the marketing environment in the post-buyout era provides opportunities and challenges for both burley and dark tobacco growers. The former federal tobacco program tended to minimize growers' price risk and generally insured profitability on a per pound basis (assuming a good quality crop), but subjected farmers to much quota and income instability in order to balance supply and demand. Income for Kentucky tobacco farmers will now have to be earned in a marketing environment characterized by a concentrated group of buyers with market power and against very competitive tobacco producers from other countries and from other traditional and nontraditional growing areas in the United States. Consequently Kentucky tobacco growers will have to pay a lot more attention to cost-cutting measures (along with quality) if they are going to survive and prosper in the post-buyout era. Thus, it becomes critically important that producers not only maintain detailed production records on their cost of production, but also understand how to develop and interpret tobacco budgets.

Budgeting and Production Economics

Economists generally classify production expenses into two categories: variable and fixed. Variable expenses are those costs which are incurred directly with the production of the crop (e.g. fertilizer, chemicals, labor) and that depend on the scale of production for a particular year. If no production occurs, these expenses will be zero. Fixed expenses are more commonly referred to as overhead expenses which do not vary with the level of production (e.g. barns, equipment, taxes, insurance). If no production occurs, these expenses will still be incurred. However in developing enterprise budgets, economists spread the cost of fixed expenses over time and across enterprises that use the particular input in the farming operation. In addition to accounting for variable and fixed expenses, economists also place an economic value on the land and operator labor as an opportunity cost to reflect that if the producer was not growing tobacco they can use their land and labor for the production of other crops or employ their labor in non-farming employment opportunities. Enterprise budgets are generally divided into several categories including:

- Gross Revenue—estimated average price per pound times the expected yield per acre
- Total Variable Costs—an aggregation of all expenses that vary with the level of production
- Returns Above Variable Costs—gross revenue less total variable costs

- Total Fixed Costs—an aggregation of total overhead expenses
- Returns to Operator Labor and Management—gross revenue less total variable costs less total fixed costs
- Operator Labor—an estimated value of the operator’s labor
- Returns Above All Costs—returns to operator labor and management less operator labor

The University of Kentucky’s tobacco production budgets are located online at www.uky.edu/Ag/TobaccoEcon/mgmt.html, or may be obtained at the local county extension office. The budgets are meant to serve as a guide (but not a rule) to assist producers in determining their own anticipated returns and costs of production. Consequently, growers are strongly encouraged to incorporate their own input costs into the budget and observe how sensitive economic returns are to changing yields, input costs, market prices, etc.

In reviewing post-buyout tobacco budgets one will notice two of the major traditional costs for producing tobacco have been eliminated with the changes in tobacco policy and marketing. The termination of the program erased the cost of quota and the switch toward contracting has eliminated marketing costs for most growers. Energy costs in recent years have soared, but as the diagram below illustrates, energy-based inputs such as fertilizer, chemicals and fuel comprise a relatively small component of total production costs. The two factors that have the greatest effect on tobacco production costs on a per pound basis are yield and labor.

Yield

Burley tobacco yields trended upwards during most of the 1960s as growers responded to the acreage program by attempting to maximize their yields on a per acre basis. However since the adoption of the poundage program in the early 1970s, burley tobacco yields have exhibited a downward trend due to a variety of reasons, including increased disease pressure and challenging weather-related growing conditions. Over the past two decades

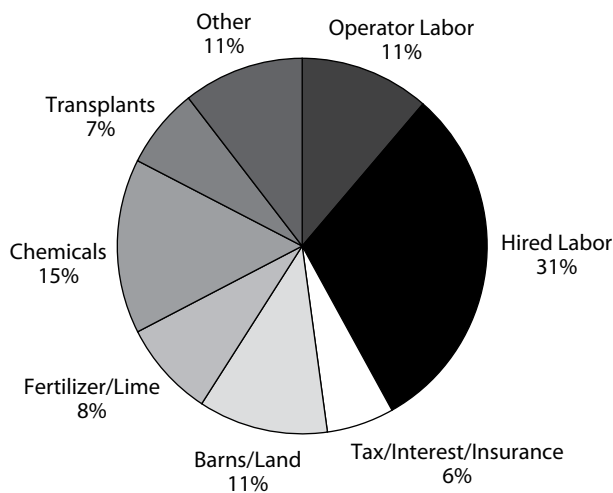
burley tobacco yields in Kentucky averaged around 2,100 pounds per acre. Current budgets and price schedules indicate that 2,100 pounds per acre is close to the “break-even” yield, given an average cost structure. Obviously under the current price and cost environment, burley growers will either have to achieve yields above our historical average or find ways to reduce costs in order to survive in a more competitive market. Average yields should tend to increase in the post-buyout era as the profit potential for relatively low-yielding producers will force many of these producers to exit. Perhaps more important than yield per acre, the current labor situation may cause producers to be more concerned about yield per plant. While yield per plant is affected by variety selection and plant population, growers should strive for around 0.33 pounds of cured leaf per plant or better. Burley growers averaging 0.25 pounds of cured leaf per plant (implying a yield of less than 2000 pounds per acre) will find it difficult to survive in the current cost/price environment.

Dark tobacco yields have been exhibiting the opposite trend as burley with many producers averaging well over 3000 pounds per acre in recent years. Consequently, dark tobacco growers have been able to achieve 0.6 pounds per plant or better given their smaller plant populations and improving yields per acre. Undoubtedly increasing yields, coupled with relatively smaller post-buyout price adjustments have enabled dark tobacco production to remain profitable for most growers in the early post-buyout era.

Labor

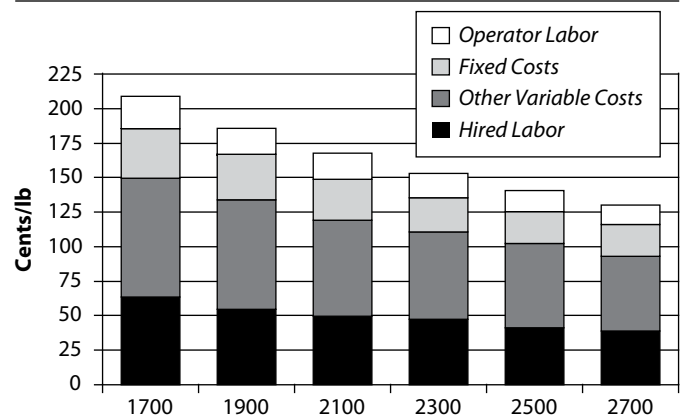
The most challenging factor affecting most tobacco farmers today is labor. Labor saving technologies for tobacco have been studied and implemented for decades, but tobacco still remains a very labor intensive crop. Tobacco production studies have generally indicated that despite some gains in labor efficiency over the years, it still takes around 200 hours of labor to grow an acre of burley tobacco, with dark tobaccos requiring 300 or more hours per acre. A lot of attention is generally focused on harvesting labor (approximately 45–55 hours/A), but market preparation requires the largest portion of labor hours (approximately 80–90 hours/A) in burley tobacco production. Historically,

Figure 1. Distribution of burley costs.



Source: UK Burley Budget

Figure 2. Sensitivity of burley input cost by yield.



Source: UK Burley Budget

tobacco budgets have generally indicated that labor accounts for nearly 50% of production expenses for burley tobacco and over 50% for dark tobacco. However, these percentages may be conservative given the escalating cost of hired labor in recent years. Consequently growers, tobacco companies, and engineers continue to study and monitor various labor saving technologies (e.g. larger bale size, more efficient stripping systems, mechanical harvesters, alternative curing structures, varying barn designs) to enhance U.S. burley competitiveness. As with any capital investment, producers are encouraged to evaluate the additional costs versus the anticipated benefits of adopting such labor saving technologies over the expected useful life of the asset.

While the cost of labor is a major concern, a greater concern among many tobacco farmers is access to laborers. Due to a very limited supply of domestic laborers willing to work in tobacco, farmers have become increasingly dependent on migrant laborers which may currently account for 75% or more of the total labor hours in tobacco production. However, immigration issues (e.g. border control of illegal labor, terrorism concerns) and competition for migrant laborers from the non-farming sector has dramatically reduced the supply of seasonal workers available in recent years. Consequently, farm organizations and policy makers in tobacco-producing states have sought national immigration reform legislation to allow for a guest worker program that will lead to an adequate supply of legal/affordable labor.

The Immigration Reform and Control Act authorizes the lawful admission of temporary, nonimmigrant workers (H-2A workers) to perform agricultural labor of a temporary or seasonal nature (10 month annual maximum). Rules and regulations regarding the hiring of legal labor are complex but manageable for informed growers. Some (but not all) of the major guidelines of the program are summarized below:

- All employers who hire temporary workers must file a labor certification application with the U.S. Department of Labor. An authorized agent or association may file an application on behalf of an employer.
- Employers must make an effort to hire U.S. workers and show that hiring migrant laborers will not adversely affect the wages of U.S. workers in similar positions.
- Employers must pay H-2A workers the same as U.S. workers and the wage must be the greater of the minimum wage, the adverse effect wage rate (AEWR) or the prevailing hourly wage rate for a given crop/area.
- Workers must be guaranteed employment for at least three-fourths of the workdays in the work contract.

Farmers who employ H-2A workers must provide:

- Reimbursed transportation and subsistence expenses for all workers for their travel expenses to the United States (after completion of 50% of the contract time period), provide transportation from the employees' housing to the worksite, and travel expenses back to the worker's area of residence at the end of the work contract.
- Free and approved housing, which will be inspected annually according to specific federal, state, and local standards and codes.
- Either three meals a day or kitchen facilities for workers to prepare their own meals. If providing meals, then the employer can deduct a federally approved amount from the employee's paycheck if outlined in the work contract.

- A copy of the work contract or job clearance order which includes the contract period, work dates/times, job duties, rate of pay, and other significant conditions of employment.
- Workers compensation insurance.
- Tools and supplies to complete assigned work.
- Detailed accurate record keeping is vital to document all employment activities/issues for this program! Records must be maintained for three years.

Several fact sheets on the Department of Labor's website are useful in understanding the basic guidelines. These include:

- H2 A General Fact Sheet: www.dol.gov/esa/regs/compliance/whd/whdfs26.htm
- H2A Compliance Review: www.dol.gov/esa/regs/compliance/whd/h2A.htm

Other relevant employer information for the H-2A program, including a link to an online application processing system for H-2A workers, can be found at www.uky.edu/Ag/TobaccoEcon.

In Kentucky, the Department for Workforce Investment: Office of Employment & Training Office (274 East Main Street, 2W-A, Frankfort, Ky.) is available to assist growers with the H-2A program. Information from this office is available online at <http://oet.ky.gov>, or by contacting Jeff Gatewood (Jeff.Gatewood@ky.gov) or Henry Gross (HenryC.Gross@ky.gov), or by calling 502-564-7456.

Growers who plan to use migrant labor are strongly encouraged to become well-educated (either on their own or by working with a reputable labor association) on the rules and regulations of using migrant laborers. Given recent attention to illegal immigration issues nationwide, fines for employing illegal workers or by not following labor/housing requirements have increased in recent months.

Finally, concerns over the labor situation have prompted several legislative proposals in Congress. Growers are encouraged to provide input and closely monitor the situation for changes that could affect the supply of labor and the general requirements outlined above.

Conclusions

Tobacco growers and tobacco companies are adjusting to the changing marketplace in the post-buyout era. During the early years of the post-buyout era, use of U.S. burley has exceeded production. But increasing input costs and frustrations over the labor situation may constrain additional acreage expansion in future years without further price incentives. Higher prices could provide the supplies to expand the dwindling domestic use, but could have adverse effects on the growing export market. Consolidation in the number of growers will likely continue with production continuing to shift to the areas that can consistently produce the quality attributes demanded by the companies at the lowest cost. While the future for those remaining in the sector remains very uncertain, production and cash receipts for the Kentucky tobacco sector do have the potential to expand in future years (in response to demand opportunities) if growers are encouraged (through manufacturer price incentives) to remain in production, and most importantly, the labor situation shows some signs of stabilizing or improving.