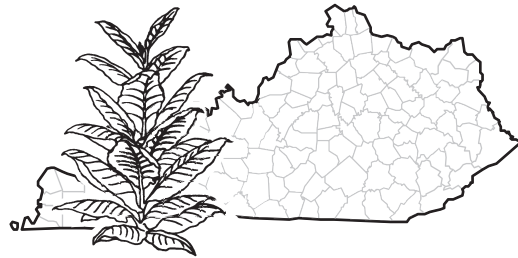


2006 KENTUCKY  
BURLEY TOBACCO  
LEADERSHIP FORUM

# Planning for the Future in Research and Extension

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Thursday, August 3, 2006

9:30 a.m. - 3:30 p.m.

Embassy Suites Hotel  
1801 Newtown Pike  
Lexington, Kentucky 40511  
(859) 455-5000

**UK**  
UNIVERSITY  
OF KENTUCKY  
College of Agriculture

## **Questions for Breakout Group Discussion (Goal for the Day)**

1. What is limiting your profitability in burley tobacco?
2. What is limiting your ability to grow the pounds of burley tobacco you want?
3. What can the University of Kentucky do in research and Extension to address these limitations and how can we best communicate this to you?

## **NOTES**

**Agricultural Economics**  
[-www.uky.edu/Ag/TobaccoEcon](http://www.uky.edu/Ag/TobaccoEcon)

**Production Economics**

The former federal tobacco program supported tobacco prices and income by guaranteeing minimum prices and authorizing grower cooperatives to purchase excess tobacco not bought by tobacco manufacturers and dealers. In reality, the program tended to minimize grower's price risk and generally insured profitability on a per pound basis, but subjected farmers to much quota and income instability in order to balance supply and demand. Quota reductions in the later years of the program tended to diminish profits from growers renting in additional pounds, but Phase II and T-LAP payments, in many cases, more than compensated for the increased quota costs. While receiving buyout payments, the post tobacco buyout era will not provide growers with price supports, a guaranteed market, Phase II, and unlikely T-LAP or other government financed payments. Thus, future income for Kentucky tobacco farmers will 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 U.S. Tobacco prices will undoubtedly be lower and more volatile than what was observed under the federal tobacco program as growers will no longer face production constraints (which will eventually increase burley supplies) and will be responsive to increasing world price/quality competition and changing trade policies. Consequently Kentucky tobacco growers will have to pay a lot more attention on cost-cutting measures if they are going to survive and prosper in the post-buyout era. Tobacco profits during the post-buyout era will depend greatly on enhancing yields and improving labor efficiency. Thus future programming efforts in agricultural economics will focus on developing budgets, conducting investment analyses on various capital expenditure items (e.g., barns, other curing facilities, mechanization, irrigation adoption, etc.), evaluating the economic impact of adopting various production practices, and reviewing production/marketing contracts.

**Policy Issues**

Despite the elimination of the federal tobacco program, the tobacco industry and tobacco growers will continue to be affected by policy issues at the national, state and local levels. Some specific examples that a tobacco policy extension program could address would include issues such as the effect of tax increases, smoking restrictions and regulations on tobacco consumption and leaf demand, the effects of renegotiation of TRQ levels or other trade agreements/policies on U.S. burley demand, immigration or crop insurance reforms, development of a marketing order for tobacco, reauthorization of USDA statistical reports for tobacco, and the potential establishment of a national tobacco advisory panel.

**Tobacco Situation and Outlook**

The elimination of many government statistical reports/data on tobacco present challenges to growers, tobacco companies, as well as analysts in evaluating the tobacco economic situation and outlook. Tobacco companies will be likely devote additional resources to monitoring various supply and demand variables which may or may not become publicly available. Thus, communication with the tobacco companies, along with accessing information/data from other sources such as agribusinesses as well as what is available from the government will be essential in analyzing various changes in the supply and demand balance in order to assist growers in making informed and optimal production and investment decisions. In addition it will be

important to keep policymakers, the media, and the general public informed of the economic importance that tobacco plays in our local and state economies.

## **Tobacco Harvesting, Curing and Stripping Advancements**

Biosystems and Agricultural Engineering Department

Larry Wells and George Duncan

*www.bae.uky.edu/ext/tobacco*

**Extension Publications and Plans-** Numerous educational resources are available to improve the equipment and facilities of burley producers and reduce labor. These include conventional and partially enclosed barns, fan ventilated designs, wooden frame and high tensile wire field curing structures with plastic or metal covering, portable handling and curing frames, pipe and steel frame hauling trailers and wagons, small bale press boxes, stripping wheel construction, stripping room plans, mechanical stripping innovations and steam conditioning information.

**Mechanical Harvesting** - Harvesting mechanization efforts have endeavored to reduce the labor hours and drudgery of harvesting stalk burley. Numerous harvesting machines have been developed and tried for mechanizing the harvest, ranging from one worker harvesting aids to stick spearing machines and plant notching and hanging methods. Development continues on a fully mechanized harvesting system involving a self-propelled harvester that cuts, inverts, notches and hangs whole plants in steel curing frames. One worker operates the harvester; a second operates a tractor-loader supplying empty curing frames to the harvester. The nominal capacity of the system is 3 acres in 10 hours, with greater capacity achievable in ideal conditions. The first commercial units will be used on selected farms and evaluated in 2006.

An alternative mechanical harvesting system under development uses similar principles with a tractor-drawn harvester that cuts, inverts and notches plants and places the plants in steel curing rails holding 40 plants each. Ten such rails are filled with whole plants and then unloaded by the harvester. One worker operates the tractor-harvester, a second worker operates a tractor-drawn retriever-transporter that picks up ten filled rails and places them onto portable curing structures. The projected capacity of the system is 1.5-2 acres in 10 hours. The prototype system will be evaluated in 2006.

**Curing Technology** - Recent studies have reported on the effects of curing environment on the tobacco specific nitrosamine (TSNA) formation in burley where managing the humidity during the latter phases of curing has had a significant effect on reducing TSNA's and providing good quality leaf. Barn curing studies to evaluate environmental control methods and the effects on the cured leaf quality are continuing. An analytical method for assessing the likely effects of weather on good burley curing conditions has been developed and posted on the web site.

**Market Preparation** - Twenty two examples of stripping room layouts for better accommodating conventional and big baling using 4-18 workers for stripping along with the location of tobacco supply and stalk disposal for efficient operations have been posted on the web site. Videos show one version of stripping and preparing big bales, stripping aids developed by both UK and farmers including the stripping wheel, single chain stalk conveyor, dual chain stick conveyor and stalk choppers. A prototype stalk chopper mechanism with 3 hp electric motor drive and accompanying conveyors has been fabricated for evaluation this season.

A mechanical system for preparing cured burley for market is being fabricated for testing. Cured whole plants are mechanically cut into four segments according to stalk position and leaf characteristics. Leaves are mechanically removed from the stalk segments and conveyed to four baling chambers; one for each leaf grade. Two workers feed plants to the systems at the rate of 2-3 per second, while a third worker carries plants to the feeders. A fourth worker is required to form and handle large bales. The projected capacity of the system is approximately one acre per hour. A prototype system will be evaluated during the 2006 marketing season.

**Other Developments** - Other engineering assistance and contributions have been made on sprayer technology, no-till transplanters, greenhouse environments and mechanical topping studies.

**Future Challenges** - Further engineering related research and development opportunities include: enhanced transplanting methods, upgrading sprayer equipment, refined and integrated harvesting, handling, curing and market preparation methods for affordable labor reduction, management procedures for curing and storage environments for minimizing TSNAs, mechanical stripping machine and methods development, simple means of leaf moisture determination at bulking and stripping time, conditioning tobacco for bulking and stripping, and optimizing big bale stripping equipment and operations.

**Survey of County Agricultural Agents**  
Summer 2006

**What activities, events, and/or other efforts do you consider to be the highlights of the Extension tobacco program in recent years in your county? Feel free to share any special details or stories relative to the results of your programs.**

Summary (number in parentheses is approximate number of times comment was made)

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Research plots/demonstrations (23)

Meetings (county, multi-county or multi-discipline) (13)

Buyout option discussions/Phase 1, Phase 2, Deloach work (12)

Renewed interest/more time with growers/problem solver role (8)

Field days (area, county) (7)

No-till tobacco (6)

Newsletters, special stories (i.e. growing tobacco in a post-buyout industry) (4)

Innovative Tobacco Growers Program (3)

Efficiencies in barn design, market preparation efficiencies (3)

Better disease control (3)

Tours (2)

Adoption of floatbed/greenhouse production for transplants (2)

Burley Coop Infrastructure Program

All Comments

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I have continued to do research plots with the tobacco specialist's including no-till trials, variety trials, black shank trials and target spot studies. I am actually seeing a renewed interest in tobacco from the growers that are left. I don't have as many growers but the growers who are left are getting bigger

I have joined Jefferson and Bullitt in having an Agronomy Update, which also includes grains, with the tobacco meeting. Our attendance has increased over the past couple of years by including grains with tobacco...in our county, our major tobacco producers are also our major grain producers

The Innovative Tobacco Growers Program

## County Field Day programs

Through research showing the advantages of the different varieties with in the county and also the use of fungicides and Herbicides

The Innovative Tobacco Grower Program, a cooperative effort by Tobacco specialists – Hardin County --- Fayette County – and Russell County was well received and attended by growers in our county. I continue to see positive results from growers who took part in the program by change in practice

No till and row-till comparison demonstrations, variety trials, insecticide trials, topping height trials, nitrogen source trials, sucker control trials, spacing trials, irrigation with trickle irrigation to save a crop during drought

We are still doing quite a bit in tobacco. We have had no tobacco field days for some time but we still have area tobacco meetings in London for the old WTA counties. In 2005 we had a buyout meeting with Dr. Isaacs and a production meeting with Gary Palmer. In 2006 we had a production meeting with Palmer and Seebold. Attendance at these meetings has dropped but not that much. Last year I had two tobacco research plots as I have had for 20 years or so. This year I have one, a blue mold test plot.

We have spent a lot of time over the years making float bed visits and that hasn't changed except that there are fewer of them and I can spend more time with the producers now than in the past. I have noticed that in a couple of cases some growers that didn't used to call much about tobacco float beds are now using extension quite a bit during this time for assistance and advice. We also did some special stories and a newsletter to growers about how production practices might be different in a post-buyout tobacco industry.

Tobacco budgeting workshops, Market preparation demonstrations (stripping room setup, stalk chopper, large bales, etc.), No till demonstration plots

Test plots, field days, and production meetings are the main educational events for tobacco programming

Variety trails for disease resistance and weight

On farm trials which include fungicide trials, Nitrogen source and rate studies, and Burley and Dark tobacco trials. Also, quite extensive work done on barn design and labor efficiency, as well as work with the burley COOP on the development and implementation of an infrastructure cost-share program

The Buyout began during my first year as an Agent so I helped facilitate informational meetings for producers with the USDA Farm Service Agency

We have never skipped a year in conducting some type of winter meetings on tobacco, whether it was economics or diseases or marketing or even several meetings on the pre and post buyout options. I have been some what surprised and amazed on the turnout and the response that we are still receiving on tobacco. I have my core list of those raising tobacco, but every week I found more individuals raising tobacco through farm calls and farm store needs. In summer visits, I have noticed those that we were in contact with in the winter are aware of the need for decreasing

costs to improve net income and those that we did not even know were raising tobacco are in 'dire straights' for help. (i.e. too much fertilizer, too little lime, etc.)

We were the first county in the nation to get blue mold. I worked with Dr. Seebold, about 5 farmers and the media to get the information for these farmers and other farmers in our county and the state. Dealing with the contract system and all the buyout and Phase II stuff is still an ongoing effort

I feel like I am still the problem solver when it comes to agronomic problems

Helping producers with buyout options. Helping them with their decision to stay in, get out or expand

No-till tobacco. In combination with the Soil Conservation District we purchased a tobacco setter, modified it for no-till, and increased acreage of no-till tobacco to about 50 acres

Two area field days

Winter production meeting in conjunction with Pendleton County

Made special arrangement with FSA office to have a buyout sign-up in Campbell County

On-farm tobacco field plots (sucker control, blue mold management, etc.) were very popular. Winter meetings were good opportunities for producers to interact with specialists and here latest recommendations. A fall harvest festival our local bank sponsored was always well attended with a special (Tobacco topic) speaker each year

I have only had one year to initiate an Extension tobacco program. I had a "Tobacco Production and Disease Control" meeting in March of 2006. According to follow-up surveys many individuals have tried different varieties of tobacco and implemented more effective production practices in response to this meeting. I definitely plan to have another spring tobacco meeting. Both Burley and Dark tobaccos were discussed in this meeting

I have continued to do research plots with the tobacco specialist's including no-till trials, variety trials, black shank trials and target spot studies. I am actually seeing a renewed interest in tobacco from the growers that are left. I don't have as many growers but the growers who are left are getting bigger

Tobacco Buyout Decision Making programming. Diseases and Their Economic Impact (a couple of years ago)

I have conducted 2-3 test plot demonstrations per year for past 8-10 years: Variety plots, Topping plots, Quadris. I have also conducted several tobacco buy-out programs and numerous Phase I and Phase II programs

Less programming on production and more on the paperwork that is associated with the economic side of tobacco. We have had programs on buy-out paperwork, phase II amnesty, lump sum payments

-Agronomy Day Programs

- outlined effective field management and disease control program.
- Youth Tobacco Show and Sale, but did not have one this past year. Trying to figure out how to do it following the “Buyout.” Are there any good ideas around for and effective youth tobacco production educational programs?
- Source of Information for labor saving ideas and demonstration
- shift to big bale
- no till tobacco—33 acres being produced in 2006 using this method
- recognizing housing and tobacco stripping operations
- tobacco transplant production and adoption of new practices
- Assistance to growers with various programs and sign-ups
- Phase II
- DeLoach Settlement
- Buyout informational meetings
- Committee organization and implementations of County Phase I Cost-Share Programs

Most of the efforts in the last 7-8 years has involved no-till tobacco production. We had excellent results with yields nearing 3000 lbs. Now without the “carrot” (1500 lbs. of quota) it is difficult to attract growers for demonstration plots

Tobacco test plots, Newsletters for Tobacco Farmers, Direct mailings to Tobacco farmers. Radio programs and Newspaper articles

1) Three Poultry litter rate experiments measuring yield and chlorine content, 2) Two nitrogen source, rate and timing experiments, 3) a field day in 2004 showing the nitrogen source comparisons

Conducted replicated variety trials for dark tobacco varieties in Daviess County in 04, and 05. Conducted black shank tolerance dark tobacco trials in 03, and a fusarium wilt tolerance trial for burley in 05. Conduct multiple tobacco related winter educational meetings each year pertaining to transplant production, overall management, labor, disease management, variety selection. Also produce many newspaper articles each year specific to production issues arising at that period. I was very proud that I held one of the first post-buyout management meetings early in 2005. I realized that not many producers knew their specific cost per pound to produce burley tobacco and I invited Steve Isaacs to demonstrate the online baled budgets. Many producers later stated that from information gathered at those educational meetings many felt more at ease with profitability in continued production

In depth tobacco buyout meetings in 2005. No till tobacco plots and meetings in past years to where now we have about 5 acres grown no till every year

Alerts to diseases in crops, control methods, promotion of warehouse in operation during last marketing season, cooperation with PM receiving station here in the county

Annual County Tobacco Meeting. Bath and Montgomery Co. have a Joint meeting every year

The six part series of the Innovative Tobacco Program in 2005 (one session was a tobacco field day at Spindletop) and six pesticide training sessions stressing concepts and products used in growing burley tobacco presented in PowerPoint. In 2005 we had the first no-till tobacco demonstration plot in Russell County. We also had a successful demonstration of trickle

irrigation on raised beds

Assistance to producers and quota owners during the Phase II, the lawsuit and buyout processes were the major emphasis in recent years. Emphasis today is assistance in viability/sustainability of enterprise to individual operations. The biggest efforts in the county in recent years have been variety trials that happened several years ago. Our major programming efforts consist of our county educational mtg and participation in the TN/KY Tob Expo in Springfield, TN, the UK Princeton Field Day, and Tobacco Field Days held at the Highland Rim Research Station of the U of T. Buyout education was very beneficial. Farmers seem to like test plot data that directly pertains to their home county. Variety comparisons are very beneficial.

Annual training covering production problems, variety info, and 2 field trials on fertility and plant spacing. Tobacco newsletters, 2 or 3/year, news articles, county field day, buyout info meetings, disease diagnosis, soil testing

We feel the Extension Service was the “go to” organization concerning all things Tobacco for the past 60 years. Annual Winter Tobacco Production meetings and Summer Field Days provided producers and quota owners with the needed information with which to make decisions through the roller coaster ride of quota poundage swings. In recent years, we added to those annual offerings with a variety of special Educational meetings concerning the several tobacco funding programs and lawsuits.

The Extension education offered for the Tobacco Transition Payment Program was hugely successful in terms of getting our producers and quota owners up to speed on signing their contracts for Buyout Payments. According to FSA, only 7 owners and 2 growers have not signed contracts to date.

Three (3) Burley variety trials every year for past 15 years. Results are placed on web, distributed in newsletter, handed out in office. Soil tests, diagnostic work, hosted three (3) industry tours, farm visits. Member of Philip Morris Quality Assurance Advisory Committee.

Buyout meetings: 99% of producers took part in these meetings and got money.

Two (2) test plots conducted with specialists every year.

Have had three producers inquire about “tobacco meeting” in Lexington and why it ended – they seemed to have valued that meeting. Also they have expressed their appreciation for a fast response to the early blue mold this year. Dr. Seebold’s help and farm visits really helped me to establish credibility as a new agent. I think the producers in my county still really appreciate the farm visit. One producer told me he was glad “someone still cared.”

Better disease control in float beds and the field.

I continue to provide information to tobacco growers. I also serve as a resource for disease ID and control.

Greenhouse tobacco production – early in the technology – 96% of acreage now set using greenhouse/floated plants. Small farm field day on floatbed construction. Blue mold resistant varieties: variety testing, chemical testing.

WBKO-TV 3-part series about future of tobacco. Tobacco newsletter.

Numerous tobacco test plots, farm visits, etc. Tobacco farms tour.

**What changes, if any, have been made in your tobacco programming now that we have moved into the “post-buyout” era?**

Summary (number of similar responses)

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Fewer growers to contact/more one-on-one work, but with larger acreage growers that are better, more knowledgeable about tobacco (21)

Maintaining service to tobacco even though numbers of growers are down (11)

More budget or efficiency conscious, focused on profitability (8)

Renewed interest in tobacco and increased number and ability to do farm visits (6)

Fewer research trials (due to loss of grower quota) (6)

Fewer production meetings because companies have their own and have their own recommendations (5)

Dealing with Phase 1, Phase 2, Deloach lawsuit, buyout issues (4)

Disease management as field sizes get significantly larger (2)

Contract production and recommendations compete with agents for farmer’s attention, companies duplicating agent’s role (4)

Labor/immigration issues are going to get worse

Farmers willing to cross county lines for meetings

All Comments

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With the renewed interest I have made many more tobacco related visits to ID disease, scout for disease, discuss new varieties, etc. this year than I did the first year of the post - buyout. I am being called upon from farmers in surrounding counties from time to time because of my work with tobacco

More considerations on marketing, varieties, and preparation for markets

I have fewer contacts as a result of fewer growers, but questions are more technical. I’m getting less information out of the tobacco companies, so I will lean more heavily upon our Extension Tobacco Specialists for current updates

I work with producers more one on one than before due to only 1/3 of them still being in business. We do not do as many on farm demonstrations. Contract production makes it more difficult to get the farmer’s attention on some subjects. Tobacco companies do not realize the resource that agents can be in the counties and are duplicating some of our activities with less

than desired results

Have not made many changes in programming efforts because tobacco is still an important crop in my county. There are fewer growers so this has resulted in fewer contacts. Also PM is having more say in the production of tobacco. We have a producer that is a part of their demonstration/field research program. Last year they were at the farm a great deal, had a field day at the farm, and UK's tobacco harvester was used at the farm

Much more budgeting info requested, Working with a smaller group of larger average growers

This is the first year that I haven't had a tobacco plot of some kind. We have dropped to less than 300 acres of burley tobacco grown and now the most experienced growers are producing the crop which drops dramatically reduces the number of farm visits and phone calls that I receive

Focus has not changed, only dealing with less producers

Less "production" oriented meetings, tobacco companies are having their own "recipe" type meetings. We have not decided what kind of meeting to have this year

When we meet, we choose specific topics to address, instead of just hitting every tobacco topic at one meeting. This helps us to target the problem areas that we saw last growing season. We are also emphasizing the need to look at every expense very carefully

Tend not to do as much programming but continue the service end of articles, and farm visits

I really haven't made any major changes. I plan to have an educational program this winter and see what kind of response I need at that time

With more than half the tobacco producers gone, not as much time is spent with tobacco production. More time and effort is spent helping them find other enterprises to make up for lost income and explaining Phase I Cost-share programs that could help them. I do still promote keeping fertility constant in the float system using the Dist. 4 meter and keep producers update on blue mold situation in my newspaper column

There's a significant decrease in the number of soil tests and publication requests relating to tobacco production from this office

Tobacco acreage has dropped 50% since the buyout. Production has concentrated to 8-10 growers producing 250 acres. Winter tobacco meeting attendance has reduced, therefore my role will focus on more individual assistance

We were already in the post-buyout era when I began my tobacco programming. However, I had an "Economic Update" meeting in February. One of the featured speakers was Dr. Will Snell who spoke about tobacco economics and the current market conditions. The information seemed to be well received by attendees

With the renewed interest I have made many more tobacco related visits to ID disease, scout for disease, discuss new varieties, etc. this year than I did the first year of the post-buyout. I am being called upon from farmers in surrounding counties from time to time because of my work with tobacco

Most of the tobacco programming is now how to spend the \$ generated from not growing tobacco (Phase 1, buyout). Otherwise there has been very little change in programming as compared to the 3-4 years before the buyout. There have been some changes in recommendations (such as nitrogen rates and chemical usage)

No change, only less emphasis on tobacco now that only the serious and experienced are raising it here

Except for not doing the plot work, I still make regular field visits to assess tobacco problems

We quit having production meetings when the attendance dropped below 15. We have fielded more questions on the paperwork that has been associated outside of production. With a receiving station they have been having contract holder meeting that address production issues

-Still have strong tobacco interest in county but less grower's involved -Growers are more receptive to try new ideas and approaches (Big Bales, No-till) -Growers are more pro-active in their Field Disease Control Management -Tobacco is still an important topic for meetings such as Field Day or Agronomy Day, but has not been the dominant topic past 2 years from a producers point of view

-Non-grower - Land owners who were involved with tenants or leases are struggling to find new ways to keep their farms productive and profitable

Most of my work is centered around trouble shooting or recommendations on varieties, fertility, weed control, and disease control. I hope to present demonstrations on labor savings, for harvest and stripping. Publications on cost controls will be helpful

No longer conducting field trials, but still making farm visits, mailing recommendations, and conducting a winter tobacco production meeting

I spend a great deal more time discussing management efficiency, disease management, transplant production and labor. The Tobacco companies suggest the varieties and fertility recs so I don't worry with that. We are looking harder in Daviess County at labor efficiencies such as outdoor structures vs. barns, large balers, and no-till. All of these and other practices will take a few dollars off of each acre. Disease management is another issue as more acres get compiled to fewer fields. LABOR source is the other management area people have chosen to ignore. These undocumented migrants are great, but immigration issues are just the tip of problems associated with non-H2A migrants. Every crew is managed by one person. If you make that one person mad, or don't bump wages by the increase he demands, you've lost your whole crew. These farmers have turned their harvest management over to the person they're paying. That can get expensive

A whole lot fewer people growing almost the same acreage which has led to a decrease in interest in tobacco education. Those growing tobacco now are mostly those very experienced and know who to go to get answers. The decline in producer numbers and the change in the type of tobacco producer have led to a lesser need for production meetings. The first production meeting I had in 2000 about 55 producers attended. The last production meeting I had in 2004 five producers attended

None, one still providing same services and support to tobacco

No test plots

The Innovative tobacco grower program prepared growers to attain higher yields of burley while producing a quality leaf. We introduced them to ways to meet the contract demands using "LC" varieties and proper fertilization. Tobacco has become a minor enterprise in Ohio Co. Ranks 6 in farm income production in the county. We have a production/marketing meeting once each year, but will have other meetings if important changes occur which affect a large % of producers

We're down to 6 producers, with all but one of these growing less than 12,000 lbs. Our largest producer has been interested in making equipment changes toward the big balers, so I've worked with him one-on-one in finding information on that. Developing into a more of a one on one relationship. Moving to the "post-buyout" era means that my traditional tob education activities are continuing much as they have for the past 20 years. The big difference is that I'm not having to do education and "service work"

I think the producers that are left understand they are operating on slimmer margins and are attempting to do a better job with managing the crop. The tobacco producers that I had left (when I worked in Elliott Co) asked more questions, and utilized researched based data. Tobacco is still a very important commodity for Nicholas Co. I continue to service tobacco producers just as I did before the buy-out

We continue to have our Annual Winter Meeting to discuss production issues. We have recruited class members for the intensive Burley Tobacco Growers Short Course, and helped at the meeting site. We continue to answer many producer calls for advice on Varieties, Disease Control, and disease identification

Working with buyers to get mailing lists to provide info to growers. Mixed results in getting this info. Agts are not notified of grower mtgs. Growers still want our help. We need better working relationship/communication.

Reduced research trials

Less time spent on tobacco due to fewer requests. Need Master Tobacco Program.

More farm visits due to larger producers.

Able to help tobacco farmers more one-on-one because of small number of producers. The producers that are still producing are serious about it.

I'm a new agent, but I have focused on trying to make production more efficient and on prevention of disease.

Trying to help farmers producer more efficiently. Price increases for leaf in 2006 was not adequate to compensate farmers for increases in costs of fuel, fertilizer, labor and all other inputs. Big tobacco could show more loyalty and appreciation to the farm instead of putting the squeeze on.

Tobacco has not been important in my (western Kentucky) county. Before the buyout we grew less than 5 acres. However, one family raised 10 acres in 2005 and is growing 20 acres in 2006.

## **Extension and Research Activities – Burley Tobacco**

Department of Entomology

Lee Townsend, Extension Entomologist

[www.uky.edu/Ag/PAT/recs/crop/rectob/rectob.htm](http://www.uky.edu/Ag/PAT/recs/crop/rectob/rectob.htm)

[www.uky.edu/Agriculture/kpn/kpnhome.htm](http://www.uky.edu/Agriculture/kpn/kpnhome.htm)

Field plots to determine the impact of aphid infestations on yields of burley tobacco and to establish the treatment guideline used for timing foliar sprays.

Field evaluations of Admire and Platinum insecticides in their developmental stages provided data to support federal labels for use on tobacco. Since that time, continued evaluations have been conducted to compare the effectiveness of the two products.

Field evaluation of four Bt (*Bacillus thuringiensis*) - based insecticides to provide efficacy information to support continued registration of the products on tobacco.

Field evaluations of insecticides to control the tobacco budworm. This information was used to support a state label to register Tracer Insecticide and ultimately to obtain a federal label for the product.

Monitoring of insect activity in tobacco to provide information for newsletter articles on levels of pest activity.

## **Burley Tobacco Research and Extension Programs**

Plant and Soil Sciences Department

University of Kentucky

[www.uky.edu/Ag/Tobacco](http://www.uky.edu/Ag/Tobacco)

**Burley Variety Development:** Dr. Bob Miller leads the tobacco breeding program that is a joint effort between the University of Kentucky and the University of Tennessee. The focus of the program is on developing varieties with improved resistance to common tobacco diseases.

Recent highlights of the program include:

- Release of KT 200 LC a high yielding variety with higher black shank resistance than previous releases.
- Release of KT204 LC a high yielding variety with higher black shank. resistance and better leaf color than KT 200 LC.
- Expect release of new hybrids with both black shank and blue mold tolerance in the near future.

**Regional Burley Testing Programs:** Mr. Jimmie Calvert manages both the Regional Burley Variety Test and the Regional Sucker Control Tests in Kentucky. These programs are a cooperative effort among burley growing states to provide uniform test procedures to evaluate potential new varieties and methods of sucker control. All new varieties must pass the regional variety test before they can be released for use by tobacco growers.

**Leaf Chemistry and Nitrosamine Research:** Dr. Lowell Bush, Dr. Harold Burton , and Ms. Anne Jack have conducted numerous studies and activities aimed at improving leaf chemistry and reducing the level of Tobacco Specific NitrosAmines (TSNAs). From basic studies to improve our understanding of alkaloid formation to the development of new curing strategies this work is intended to insure that Kentucky grown burley tobacco meets the needs of the tobacco industry now and in the future. Recent highlights include:

- Improved understanding of the role of secondary alkaloids in TSNA formation.
- Screening of popular varieties to reduce the incidence of nicotine conversion that resulted in the release of “low converter” (LC) versions of Kentucky and Tennessee burley varieties.
- Development of the standard method of screening that will be used to reduce the incidence of nornicotine formation in all current and future burley varieties.

**Tobacco Field Production Research:** Dr. Gary Palmer, Dr. Bob Pearce, and Dr. Andy Bailey conduct many research trials each year on topics such as transplant production, fertilization, topping and sucker control, and conservation tillage. Recent highlights include:

- Refinement of techniques for producing quality transplants in tobacco float systems.
- Development of combinations of systemic and local systemic sucker control systems that reduce residues of MH and provide more consistent control of suckers.
- Development of methods for no-tillage production of burley tobacco.
- Revision of nitrogen fertilizer recommendations.

**Other Research:** The Plant and Soil Sciences department also has several other faculty members who address issues such as weed management, herbicide testing, fertility, and soil compaction as needed to support burley tobacco extension efforts.

In addition, there are some faculty members who study tobacco physiology or use tobacco as an experimental system to understand plant processes and develop new technology that might allow tobacco to be used for purposes other than smoking.

**Burley Tobacco Extension Programs:** Dr. Gary Palmer, Dr. Bob Pearce, and Dr. Andy Bailey conduct many activities to distribute new production knowledge to growers of burley tobacco.

Some examples are:

- Numerous phone consultations and field visits with tobacco growers
- 50+ winter tobacco meetings and 20+ field days annually
- Tobacco fact sheet series: short informational publications on current production problems.
- Burley tobacco web page: <http://www.uky.edu/Ag/Tobacco>
- Innovative Tobacco Growers Program: A multi-session program designed to provide growers with in depth knowledge of production methods.

**Extension and Research Activities**  
Kenneth W. Seebold, Jr.  
Dept. of Plant Pathology  
[www.uky.edu/Ag/kpn/kyblue/kyblue.htm](http://www.uky.edu/Ag/kpn/kyblue/kyblue.htm)

**Kentucky Tobacco Disease Information Page and Blue Mold Warning System**

- The Kentucky Blue Mold Warning System was re-designed and new materials were added to provide tobacco growers with easy-to-find information on the status of blue mold in Kentucky and surrounding states, along with up-to-date control recommendations and labels for disease control products.
- A mailing list (listserv), KY Blue Mold Alert, is maintained to deliver timely information on the status of blue mold and on control recommendations for blue mold and other diseases of tobacco throughout the season.

**Applied Research – Disease Management**

- Research on chemical options for control of blue mold and black shank is being conducted around KY. Experimental fungicides are under evaluation, and currently labeled materials are also being tested.
- Fungicides and host resistance, in combination, are being tested for management of blue mold and black shank.
- Fungicides and biopesticides are being evaluated for management of diseases that occur during production of transplants, such as Pythium root rot and Sclerotinia rot (collar rot).

**Oospore Survey**

- Tobacco samples from all counties that report blue mold are prepared and shipped to USDA-APHIS officials in North Carolina to be inspected for the presence of oospores. Clearance from USDA-APHIS is required in order to export U.S.-grown burley tobacco to China and is stipulated in the tobacco trade agreement between the U.S. and China.

**Section 18 Emergency Exemption for Quadris – 2005 & 2006**

- Collaboration with the Kentucky Department of Agriculture led to approval of an exemption (Section 18) from the Section 3 label of Quadris for use on tobacco to control target spot and frog-eye leaf spot in 2005 and 2006.

**Other Activities**

- Educational programs designed to raise grower awareness of the importance of disease management in tobacco were presented at county meetings during the winter of 2006.
- Phone consultations and field (grower) visits.
- Radio tapes and KY Pest News articles on disease management practices in tobacco.