UK COOPERATIVE EXTENSION SERVICE
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Revised Nitrogen Fertilizer Recommendations for Tobacco

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As a result of the recent tobacco buyout tobacco growers are facing lower leaf prices and increased scrutiny of their production practices. Tobacco companies have expressed concerns over excessive rates of nitrogen and their potential link to high nitrosamine levels in the cured leaf. Additionally, nitrogen fertilizer prices are expected to increase as a result of increasing fuel prices and homeland security concerns. In light of these issues the nitrogen recommendations for tobacco grown in Kentucky have been revised.

The revised recommendations will provide tobacco growers with economically sound nitrogen rates that will allow them to produce good yields and quality while minimizing over application. Table 1 shows the revised rates for tobacco based on soil drainage and crop history. The rates have not been changed drastically. The extra 50 lbs. per acre for continuous tobacco has been removed from the recommendations and the rates for well drained soils have been separated from those for soils that are only somewhat well drained. This allows recommendations for lower N rates to be made on soils with good drainage. The new rate scale may result in a recommendation of approximately 50 lbs. less N/A for most tobacco growers.

Research over the last decade has repeatedly shown that high cured leaf yields can be achieved while using these recommended rates of nitrogen. Using the recommended rates of nitrogen in conjunction with a good system of crop rotation could result in a significant reduction in fertilizer expense with little or no impact on leaf yields. In most growing seasons weather, disease, or other factors will lower leaf yield before nitrogen becomes limiting.

Language regarding the practice of sidedressing has also been updated. Sidedressing is recommended on problem soils including sandy soils and soils with poor drainage. Sidedressing improves fertilizer use efficiency by placing the fertilizer near the root zone just prior to the time of most rapid N uptake. However, sidedressing a high rate of N fertilizer may increase late season N uptake and contribute to leaf levels of N that are higher than desired. If sidedressing is practiced on well drained soils, growers are encouraged to reduce the total N rate by 15 to 25 lbs N/A. For more information on recommended fertilization practices for tobacco please see AGR-1 2006-2007 Lime and Fertilizer Recommendations at your local county extension office or online at: http://www.ca.uky.edu/agc/pubs/agr/agr1/agr1.htm

Table 1. Nitrogen recommendations for Burley and Dark Tobacco.

	Well Drained Soil	Moderately Well Drained Soil
	----------Lb N/A----------	
Low N levels: following tobacco or row crops	225-250	250-275
Medium N levels: first-year tobacco following a grass or grass-legume sod	200-225	225-250
High N levels: first-year tobacco following legume sod or legume cover crop	150-175	175-200