

Harvest Management for Burley and Dark Tobacco

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One of the most important management decisions in producing high quality burley or dark tobacco is deciding when to cut. Maturity of the crop should be the primary consideration, although weather conditions and the availability of labor are also factors. Tobacco cut at maturity but not allowed to become overripe will be easier to cure and have better cured leaf quality than immature or over-mature tobacco. In general, burley or dark air-cured tobacco harvested by mid-September in Kentucky will have the best opportunity for good air-curing conditions in most years. Air-cured tobacco harvested later, particularly in October, will experience cooler temperatures, lower relative humidity, and generally less-ideal curing conditions in most years. Dark fire-cured tobacco can be harvested through mid-October if needed without reducing quality as outside weather conditions have less of an effect on curing conditions. Frost damage to tobacco is always a concern as harvest extends past mid-October. A worst case scenario is when frost occurs on freshly harvested tobacco. If frost occurs on tobacco before harvest, it is advisable to allow tobacco to stand for at least two days following the frost. Often the first frost is light and does not occur on two consecutive nights.

Burley Tobacco

Burley tobacco should be allowed to ripen until nearly all of the upper leaves show a distinct yellow-green color. Stalks and main leaf stems will lose much of their original greenish color and take on a cream-to-white appearance. This change in color usually occurs between three and five weeks after topping, depending on the variety and environmental conditions. Many

growers hesitate to allow upper leaves to ripen for fear of losing lower leaves. However, added growth of upper leaves usually more than compensates for any loss of lower leaves. Under good growing conditions, burley tobacco crops will continue to add weight for the first four to five weeks after topping. Harvesting at six weeks or more after topping usually does not result in increased yields and often leads to decreased leaf quality.

If possible, try to schedule burley harvest when at least a few days of fair weather are expected. Burley tobacco can be cut and put on sticks (“speared” or “spiked”) in the same operation. Do not put more than six plants on a stick unless plants are extremely small. Tobacco can then be left on the standing stick in the field to wilt before being picked up for housing. Tobacco that is adequately field wilted will be lighter and easier to handle and house (up to 20% less fresh weight), and will incur less leaf loss and bruising. Tobacco that sunburns or has light frost damage may require a few (three to four) days of sunlight to remove chlorophyll staining. It is especially important not to let harvested tobacco get excessively wet and muddy in the field, and it should not be left standing in the field longer than four days, even if weather conditions are good.

Burley tobacco can be loaded onto flatbed wagons or scaffold wagons for transport from the field. Flatbed wagons can be used if tobacco will be housed immediately. Tobacco loaded onto scaffold wagons can remain on the wagon for additional wilting prior to housing if needed. While loading, tobacco can be regulated on sticks so that plants are spaced equally apart and leaves hang straight down the stalk. Some producers prefer to regulate tobacco when housing.

Good housing practices are essential for high-quality cured tobacco. Good cured leaf can be obtained in conventional curing barns or in outdoor curing structures if proper management is used. In conventional curing barns, all available space should be uniformly filled, as air does not circulate well through tobacco in partially filled barns. Sticks should be spaced at least 6 inches apart on the tier rail in conventional barns to allow air movement between sticks. Ensure that plants are spaced equally on sticks and leaves are shaken out to hang down the stalk if that was not done at loading in the field. Fill each bent in the barn completely from top to bottom. If possible, fill the entire barn in the same time period, as greener tobacco does not cure as well when hung with partially cured tobacco. Tip leaves should hang between sticks of lower tiers and not overlap.

Burley tobacco can usually be hung at higher densities in open-sided, low-profile outdoor curing structures without increased risks of houseburn or barn rot. Burley tobacco hung on these structures can be spaced as close as 4 inches apart. Since natural airflow is greater in these structures than in conventional barns, closer stick spacing helps to prevent the tobacco from drying too fast and setting undesirable colors in the cured leaf. Burley tobacco cured with good management practices on outdoor curing structures has been shown to have cured leaf quality equivalent to burley cured in traditional barns in most curing seasons. Generally, burley cured on outdoor structures may have better quality than burley cured in barns during dry curing seasons, but may have lesser quality in wet curing seasons.

Dark Tobacco

Similar to burley tobacco, dark tobacco that is allowed to ripen before harvest will cure much more easily and with a better color. Dark tobacco does not show distinctive yellowness in the field at maturity like burley and is therefore more difficult to estimate ripeness. Dark tobacco is ready for harvest when leaves begin to show a very faint spotty yellow cast. At this stage, the upper leaves will be thick and oily and will crack readily when doubled between the fingers. Depending on variety and environmental conditions, this usually occurs between five and seven weeks after topping. Exceptions are TN D950 and PD 7305LC, two early-maturing varieties that may be ready for harvest between four and five weeks after topping. TR Madole, VA 309, and KT D6LC (which is a hybrid of KT D4LC and TN D950) may also show rapid maturity and leaf breakdown as early as five weeks after topping when transplanted in May.

Dark tobacco that is ripe when harvested will have brittle leaves that will break and bruise easily. For this reason, dark

tobacco should not be cut and put on sticks in the same operation, as is typically done with burley. Due to its more prostrate leaf structure, dark tobacco should be carefully cut, with caution being taken not to break lower leaves, and allowed to wilt in place or “fall” before being put on sticks. Depending on temperature and sunlight intensity, this wilting period may take anywhere from 30 minutes to several hours. Tobacco cut late in the day can be left to wilt overnight if there is no chance of rain that will leave the tobacco excessively wet or muddy. Once tobacco is wilted enough to be put on sticks without breaking leaves, it should be spiked and picked up as soon as possible. Dark tobacco is very susceptible to sunburn. Caution should be taken to avoid cutting more tobacco than can be spiked and loaded in a day. Many growers may pile the tobacco after initial wilting in groups of six plants to make spiking easier and temporarily reduce the risk of sunburn. No more than six plants should be put on a stick, and five plants per stick works better for larger tobacco. Whether the tobacco is spiked from piles or directly from the ground, it should not be allowed to stay in the field for more than a few hours before being picked up and loaded. Recently, some growers have used burlap sheets placed over piles of spiked tobacco before picking up to increase wilting and reduce the risk of sunburn. While burlap covering of piles will delay sunburn risks, be aware that dark tobacco can still sunburn under burlap on a clear, hot day. When loading, space plants equally on sticks and shake leaves so that they hang straight down the stalk.

Scaffold wagons are the preferred means of loading and transporting dark tobacco. Scaffolded tobacco is less likely to sunburn and can remain on the wagons for several days of additional wilting before housing if wagons are placed in shade or are covered with shade cloth.

Dark tobacco housed in newer barns with wider vertical tier spacing should have a stick spacing of at least 8 to 9 inches. In older barns with narrow tier spacing, place sticks at least 12 inches apart. Narrow tier spacing in older barns may only accommodate tobacco topped to 12 or 14 leaves, whereas wider tier spacing in newer barns will accommodate tobacco topped to the current market standard of 16 to 18 leaves. Use alternating placement on tier rails so that tobacco does not overlap tobacco on lower tiers, or hang tobacco only on every other tier if barn space allows.

For dark fire-cured and dark air-cured tobacco, fill the entire barn in the same time period, as tobacco will not cure as well when housed at different stages. Fill each bent of the barn from top to bottom, ensuring that plants are spaced evenly on sticks and leaves hang straight down the stalk. Due to increased risk of weather damage, the use of outdoor curing structures for dark air-cured tobacco is not currently recommended.