



Harvesting, Curing, and Preparing Dark-Fired Tobacco for Market

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Harvesting

Dark-fired tobacco is ready for harvest when leaves are mature, but not overripe. This normally is between 4 and 6 weeks after topping. Mature leaves will show some yellowing (“ripe spots”) and leaves will crack rather than bend when folded.

Tobacco cut immature or “green” can be difficult to cure, and both yield and quality will be reduced compared to mature tobacco. Overripe tobacco is brittle and difficult to handle, causing yield and quality loss due to leaf breakage.

Leaf breakage can be minimized if cutting is begun after dew has evaporated from the leaves. Large, heavy bodied tobacco should be allowed to wilt to facilitate handling before placing the stalks on a stick (“spiking”). The amount of time between cutting and spiking depends on weather conditions. Care must be taken to avoid sunburn, which will result in a crude green color to be set in the tobacco. Under clear, hot conditions, tobacco may need to be spiked within an hour of cutting; under cool, overcast conditions tobacco may wilt for 3 to 4 hours before spiking.

After spiking, tobacco should be allowed to wilt further before housing. Do not crowd tobacco on sticks when housing. Unless tobacco is unusually small, no more than 5 to 6 stalks should be placed on a stick. It may be placed on scaffold wagons, wooden scaffold frames or, if weather conditions permit, placed in piles of 5 to 6 sticks in the field.

Tobacco that is field wilted in piles can heat and spoil or sunburn, so it should be closely watched. Scaffolds for field wilting should be placed in the shade or protected from sunlight with a loose fabric material to prevent sunburn. If possible, leave tobacco on scaffolds for 2 to 3 days for wilting. Tobacco that is adequately wilted will be easier to handle, will be less likely to houseburn, and will yellow and cure better.

Housing

Tobacco should be housed when adequately wilted. Proper housing practices will minimize risk of houseburn and facilitate curing and finishing. Sticks should be placed 8 to 12 inches apart on tier rails (depending on tobacco size and

degree of wilt). Tier spacing in many barns will only accommodate plants topped to 11 to 12 leaves; current practice is to top to 14 to 16 leaves. To avoid curing problems, tobacco may be hung on every other tier. If hanging every tier, be sure to regulate the vertical placement when housing so the tails from an upper tier do not lie on the butts of a lower tier.

For best results, curing barns should be filled in as short a time as possible. Trying to cure green and yellowed tobacco in the same barn can be extremely difficult. If you do need to fill a barn over an extended time, fill the barn by sections beginning at one end rather than by tiers starting at the top. Then you will be able to fire sections of the barn differently to accommodate the condition of the tobacco.

Curing

Although some of the science of curing dark-fired tobacco is understood, it still remains an art. Weather conditions, barn type and location, and how the tobacco was cultured can all affect how the crop can best be cured. You can dramatically improve the quality of an average crop in the field if you cure and finish it properly, but a crop that looks outstanding in the field can be ruined in the barn.

Although there are no hard and fast rules, the curing and finishing process can be broken down into four phases:

- *yellowing,*
- *setting color,*
- *drying, and*
- *finishing.*

Yellowing

The degree of yellowing before fires are started will affect the color of the cured leaf. Tobacco should be allowed to yellow as much as possible without heat, managing ventilators carefully to prevent houseburn.

To obtain the desirable brighter color on thin leaf, low heat should be added when the temperature drops below 70°F. Small fires may also be necessary during warm, wet periods to prevent houseburn and sweat.

With heavier bodied tobacco, fires may be withheld until

yellow spots begin to appear — usually from 4 to 7 days after housing. Fires that are too hot, too soon will set a greenish cast (“blue”) on the tobacco. This results in a crude green that will remain after curing is completed. Top ventilators are usually left open during this phase of curing and mostly smoke is used.

Setting Color

When yellowing is completed temperatures are increased to set the leaf color. Ventilators are usually closed and temperatures are kept below 100°F. Maintain these conditions until the leaf web shows a solid, clear color. Depending on tightness of the barn and weather conditions, this may be done with one firing or may take several firings (5 to 10 days).

Ventilate the barn completely between firings and allow the tobacco to come in order before re-firing. When the tobacco has a clear face and the stems are dried and browned one-half to two-thirds of the way up the leaf, it is time to finish drying.

Drying

Tobacco is brought in order, ventilators opened, and heat is increased until the stems are completely drawn down and darkened. Tobacco should crumble to the touch and there should be no sign of puffiness of the midrib near the stalk. Puffy stems left during this phase cannot be drawn down during finishing, no matter how hard the barn is fired.

Finishing

After the stems are dried and darkened, temperatures are reduced and smoke volume is held high to “finish” the leaf. Current market demand is for well-finished tobacco, so do not take shortcuts during this phase.

Tobacco takes finish better when in order, so it should be fired using a heavy sawdust smoke with little or no ventilation. The sawdust, barn floor, and walls may be dampened to produce a moist smoke that will help keep tobacco in order longer.

Only hardwood slabs and sawdust should be used in firing tobacco. Products such as molasses or brown sugar should not be used in attempts to “flavor” the smoke and improve gumminess of the cured leaf. Where these are used the end product is usually tobacco that is not usable by the trade because of off flavor or excessive stickiness that adversely affects handling.

Unfavorable Curing Conditions

“Ideal” curing conditions — warm days early, regular fogs later to bring the tobacco in order, no extremely hot or freezing conditions — rarely occur, so you should pay close

attention to the condition of the tobacco and be prepared to adjust your curing management to ensure a good cure and finish.

During warm weather curing (day temperatures >80°F), the yellowing stage is rapid and fires should usually be started by the fifth day after housing. Use small fires for coloring and do not use wet sawdust unless the tobacco begins to dry too fast.

High humidity in the barn can be a serious problem in warm weather curing. Use top and lower ventilators to maintain the correct temperature and humidity. It may be necessary to use a low fire with open ventilators to drive out moisture. Tobacco will mold quickly in warm weather, so special attention should be given to the crop through the stem darkening stage. Humid air can promote houseburn, sweat, and mold. Proper use of the top ventilator to release moisture, in conjunction with proper fire management, usually will regulate the humidity.

In cold weather (day temperature in the 50s, night temperatures below 45°F), the leaf may not stay in order long enough to reach a desired color, resulting in green, yellowish, or mottled colors. Under these conditions the tobacco should be yellowed using low heat and the temperature gradually raised to induce coloring. With increased temperature the tobacco tends to dry out, so all ventilators should be closed and wet sawdust used on fires to produce a moist smoke.

Preparation for Market

Tobacco should be taken down and bulked as soon as possible after curing. If properly bulked, quality can improve and tobacco will remain in order so that it can be stripped at any time.

Place tobacco off the floor with tips slightly lapping in the middle of the bulk. Cover with a fabric cover — plastic covers may cause condensation that will stain the tobacco. Flavor can be lost if it is left hanging in the barn for an extended period. A brief re-firing will help tobacco quality if it is necessary to leave it hanging.

Water should not be used to bring tobacco in order. Wait for a natural season. Water can wash off finish and lead to stain and spoilage.

Care should be taken in stripping and handling the crop. A minimum of three grades — lug, second, and leaf — plus a green grade should be made. Lugs may be further classed into good and trash, based on dirt and injury. If there is excessive dirt or mud on the leaf or seconds, make a separate grade for the dirty tobacco. If there is just a little mud caked on the tails, twist the dirty tails off as hands are tied.

As tobacco is stripped it should be tied into hands of 8 to 12 leaves each. Hands should be bulked and protected from dirt and injury until delivered to market. Be sure to protect the tobacco to maintain quality during hauling.