Introduction

There has been recent interest from tobacco dealers in purchasing Connecticut Broadleaf tobacco produced in Kentucky and Tennessee. Connecticut Broadleaf has traditionally been grown in areas of the Connecticut River Valley in Connecticut and Massachusetts. However, decreased production in this traditional area along with increased demand for natural leaf cigar wrappers has forced tobacco dealers to look at other tobacco-producing areas for production of this type. Connecticut Broadleaf tobacco is most similar to dark air-cured tobacco, but generally has enhanced leaf quality characteristics that could increase its potential for use as cigar binders and wrappers. Wrapper is the term used to describe a portion of a tobacco leaf that is used for the outer layer of a cigar, which is the most visible portion of the cigar. Two to three wrappers may be cut from a single leaf of wrapper tobacco. Binder is the term used to describe leaf that is used just inside the outer wrapper leaf of a cigar, while the remainder of the cigar that is inside the binder is known as filler. Prices offered for cigar wrapper and binder grades are quite high ($4 to $6/lb) compared to current prices offered for dark and burley tobacco. However, prices offered for cigar filler are considerably less than current prices for dark and burley tobacco. Projected yields of Connecticut Broadleaf tobacco are relatively low at about 2000 lbs per acre of cured leaf. Therefore, profitability of Connecticut Broadleaf tobacco is highly dependent on the amount of wrapper/binder grades that can be produced. To be profitable, growers producing Connecticut Broadleaf tobacco should strive to produce at least 50% wrapper/binder grades.

To be considered cigar wrapper, leaves must be at least 9 inches wide, have uniform brown color, excellent elasticity (stretch) throughout the leaf, be relatively thin, and be nearly free of flaws such as holes, bruises, watermarks, or mixed color areas. Leaves that would be of sufficient size to qualify for wrapper grades would usually be found in the upper portions of the stalk, while binder grades may come from the upper or mid-stalk portions. For this reason, extra management during harvest and handling are very important to prevent any damage to leaves that may have potential to become wrapper leaves.

Although Connecticut Broadleaf will definitely require more management than that required for burley and dark tobacco, it is also a fairly short-season crop that may be ready to harvest in as little as 10 weeks after transplanting. This may provide for some labor efficiency when grown along with other tobacco types, allowing growers to harvest all of this type before they finish harvesting burley and before they start harvesting dark tobacco.
General Production Guidelines

Varieties

There are a limited number of Connecticut Broadleaf varieties available, and none have any resistance to black shank. Therefore, Connecticut Broadleaf should only be grown in fields that have absolutely no known history of black shank. Current varieties either have no resistance to any disease (such as is the case for the variety ‘C-33’), or only have limited resistance to diseases such as tobacco mosaic virus (TMV), fusarium wilt, black root rot, and blue mold. In addition, dealers purchasing the tobacco are currently supplying one variety of seed to the grower, so there is no real variety selection as is available for dark and burley tobacco.

Transplant Production

Production of Connecticut Broadleaf transplants in the float system is similar to production of dark or burley tobacco transplants, so the same general guidelines for transplant production should be followed. However, Connecticut Broadleaf varieties may grow off faster in the field and also in the float bed, so growers should watch the growth of these plants so as not to fall behind on transplant management practices, particularly clipping. Standard float bed fertility programs and spray programs with mancozeb (Manzate), acephate (Orthene), Bt (Dipel), streptomycin, and a single application of Quadris that are used in dark and burley would also be appropriate for Connecticut Broadleaf. Confer with the buyer for more specific information or restrictions on the use of certain products.

Field Production

Fertilization

As cigar wrapper tobacco leaves are generally thinner than upper stalk dark and burley leaves, nitrogen recommendations are lower than those used for dark or burley. Total nitrogen should be between 150 and 200 lbs N/acre. It is recommended that at least half of this nitrogen be applied prior to transplanting and the remainder side-dressed at around 3 weeks after transplanting. Phosphorus and potassium should be applied according to soil test recommendations. Potassium applied in the spring should be applied as sulfate of potash (0-0-50). Soil pH recommendation for Connecticut Broadleaf is the same as that for dark or burley tobacco (6.2 to 6.6).

Transplanting

Standard plant populations for Connecticut Broadleaf fall between those currently recommended for dark and burley tobacco. Plant population should be between 6,000 and 6,400 plants per acre. This would be about 24 to 26 inch plant spacing on 40 to 42 inch rows.

Pest Control

Although much emphasis is placed on integrated pest management for standard dark and burley tobacco crops, with monitoring of pest presence and thresholds before pesticide applications are made, prevention before any pests occur is much more of the emphasis for cigar wrapper crops like Connecticut Broadleaf. Most successful Connecticut Broadleaf growers will be making fungicide or insecticide applications about every 7 to 14 days throughout the season. Residual insecticides such as imidicloprid (Admire Pro or generics)
or thiamethoxam (Platinum) should be used as tray drench or transplant water applications for aphid and flea beetle control, as well as rynaxypyr (Coragen) in transplant water applications for residual worm control. Ridomil Gold SL or Orondis/Ridomil Gold should be used in transplant water as preventative insurance against black shank and pythium, but remember first and foremost that Connecticut Broadleaf tobacco should not be transplanted into fields with any history of black shank. During the season, preventative applications of Quadris fungicide, alternated with Manzate fungicide, should be used for prevention and early control of frogeye leafspot and target spot. Up to four applications of Quadris can be applied at 8 oz/acre per application, with Manzate applications (2 lb/acre per application) made between Quadris applications. Quadris can be applied up to 21 days prior to harvest and Manzate can be applied up to 30 days prior to harvest. If blue mold threatens (is found within 100 miles), growers should also be prepared to apply other blue mold fungicides such as Revus. Angular leafspot may also be a problem in Connecticut Broadleaf as it has been in dark tobacco, so growers should be prepared to make preventative applications of streptomycin (1 lb per 100 gal water) ahead of damaging storms and make additional applications if angular leafspot appears.

Based on limited experienced in 2018 with Connecticut Broadleaf, it seems that this type may be more susceptible to late-season Frogeye leafspot infections that can result in “green speck” in the cured leaf (Figure 1). These leaves would obviously not be graded as wrapper or binder. For this reason, it may be appropriate to consider a Quadris application made near the 21-day preharvest interval. Connecticut Broadleaf may also be more susceptible to flecking injury from Quadris applications that may compromise wrapper leaf potential, so be sure to only apply Quadris alone with no tank mix partners or adjuvants, and don’t apply in the heat of the day. Again, confer with the buyer for more specific information or restrictions on the use of certain products.

![Figure 1](image)

Figure 1. “Green speck” on cured leaf associated with late-season Frogeye leafspot infection.

Topping and Sucker Control

Connecticut Broadleaf is known to be a very fast-growing type of tobacco in the field. Where dark tobacco may be ready to top in about nine weeks, Connecticut Broadleaf may be ready to top in about seven weeks.
Lower topping heights result in more leaf area per leaf, and are a standard practice for cigar wrapper tobacco. Early-flower topping should be the target for Connecticut Broadleaf, and plants should be topped down to 12 to 14 usable leaves. For sucker control, manual stalk rundown applications of fatty alcohols (Off-Shoot T, Sucker Plucker, Fair 85, Royal Tac M) and local systemics (Prime+, Butralin, or Drexalin) with backpacks or droplines are recommended. Foliar spray applications of these products or applications of MH are not recommended due to effects on leaf size and texture.

For manual stalk rundown applications with droplines attached to spray booms, attach rubber tubing eight to ten-feet long where nozzle are connected to the spray boom. Attach a trigger attachment (with our without a short “wand” attachment) to the end of the tubing (these are available in plastic and brass from the spray parts section of many farm supply stores). A large orifice nozzle can be attached to the trigger or trigger/wand attachment, but no nozzle at all can also be used. Use very low pressure (10-12 psi or less). If tobacco is straight, it only requires about ¾ ounce of solution per plant to get good rundown on stalks, and possibly even less with short plants of Connecticut Broadleaf topped down to 12-14 leaves.

Harvest

In order to achieve the correct leaf body and thickness, protect leaf integrity of wrapper leaves, and prevent leaf damage from weather in the field, Connecticut Broadleaf needs to be harvested on the immature side, by about three weeks after topping. This type of tobacco will require field-wilting after cutting and before putting plants on sticks, but take precaution against sunburn by not cutting more than can be picked up quickly if sun becomes intense during field-wilting. Spike/spear as soon as tobacco is pliable enough to be put on sticks without breaking leaves. When cutting, make sure stalks are cut at ground level to prevent stumps from poking holes in wrapper leaves that are laid down to field-wilt. Also, spike/spear plants onto sticks in the row middle instead of over the row to prevent dragging plants over stumps. Sticks should be loaded onto scaffold wagons immediately after spiking/spearing and not pushed up tight to prevent bruising and leaf breakage. For assistance with constructing scaffold wagons, see https://www.uky.edu/bae/content/tobacco-plans#wagons

Shade cloth can be used over scaffold wagons to prevent any further risk of sunburn after sticks are loaded. Loaded scaffold wagons should be pulled into a shaded area for additional wilting prior to housing/hanging in the barn. Sticks should be housed/hung in good air-curing barns that provide good ventilation. Use at least 10-inch stick spacing on the tier and consider skipping tiers in older dark barns that have short (3 ft.) vertical tier rail spacing.

Curing

More barn management during curing will be required for Connecticut Broadleaf than for burley or dark air-cured tobacco. Take advantage of the better weather conditions for curing when scheduling harvest. Make every effort to harvest Connecticut Broadleaf while weather is still warm (target harvest by at least September 15) for the best air-curing conditions. Ideal curing conditions during the first four weeks of curing are daily average temperatures of 60 to 90 F and daily average relative humidity of 70 to 75%. For most of the cure in most curing seasons, barn doors and vents should be open most of the time during the day, but consider closing doors and vents at night when humidity is high. If conditions turn dry (<60% average daily relative humidity), doors and vents may need to be closed during the day and open at night.
If conditions turn wet (>80% average daily relative humidity), consider using fans to move air, as long as the fans are not moving moist air through the tobacco.

During prolonged wet, high-humidity periods, it may be necessary to use heat in the barn to lower the humidity. Propane burners or small fires with dry wood or charcoal (limited smoke) can be used in the floor of the barn for short periods (6 to 8 hours at a time) to lower humidity during these prolonged wet periods.

Summary

Connecticut Broadleaf tobacco may be profitable for Kentucky and Tennessee growers that use good management. However, this is a new type that will require considerably more management, fungicide/insecticide applications, and labor than the traditional types grown in this area. We still have much to learn about growing Connecticut Broadleaf tobacco. Field research trials are being conducted with this type in 2019 that should provide more information and more specific recommendations in the future. For tobacco growers considering Connecticut Broadleaf, it is advised to start small with no more than 1 or 2 acres as this is a high risk for a potentially high reward crop. Growers are advised to have good communication with their buying company for this type of tobacco and be sure to understand the terms of their contract. Buyers may have very specific preferences for the types of pesticides used.

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