

KENTUCKY CHRISTMAS TREE PRODUCTION WORKBOOK

FOR-17



PLANTATION LAYOUT

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Once you have made the decision to grow Christmas trees and know where and how you are going to do it, you need to plan the physical layout of your plantation. The following is one suggestion for a plantation of 1 to 10 acres.*

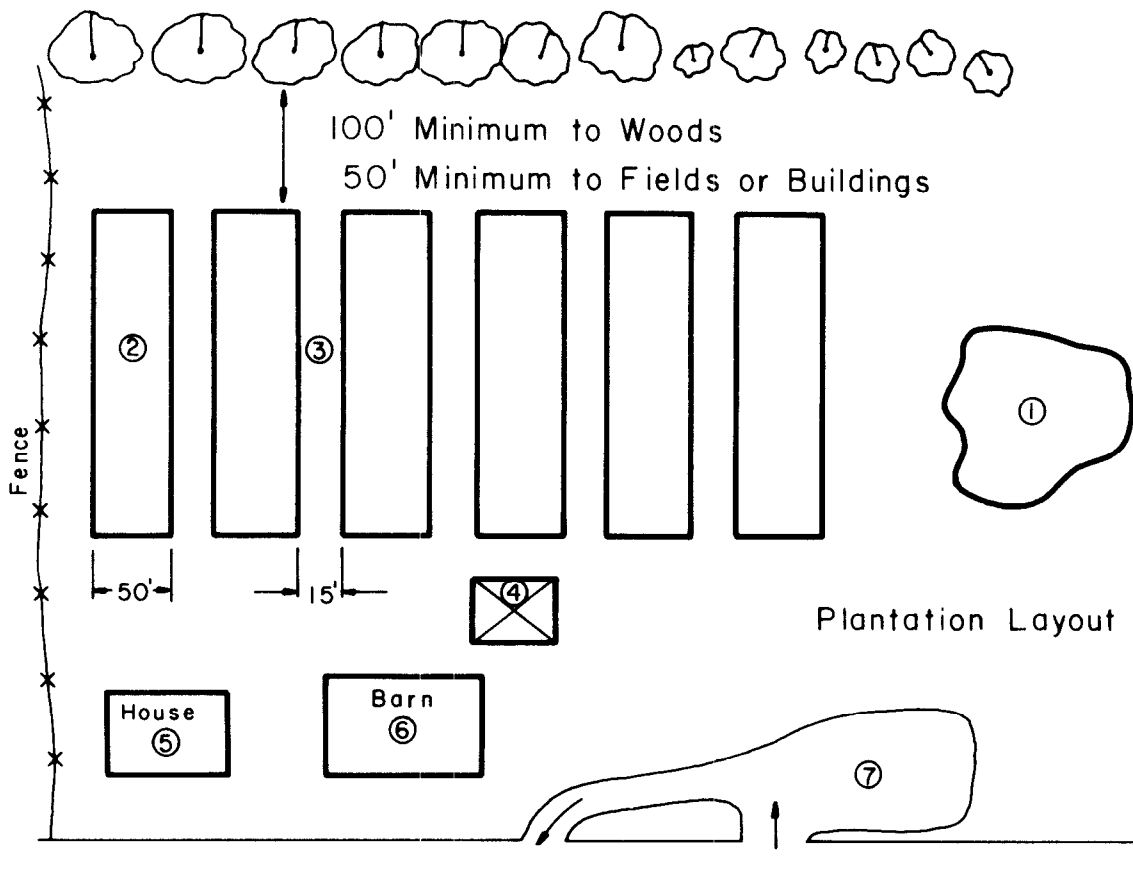
Layout Requirements

- (1) Try to have a water source available (stream or pond), or consider installing drip irrigation equipment.
- (2) Planting blocks should be about 8 rows deep and

each block should contain similar species to minimize insect and disease problems. Rows can be 100-200 ft long (16-32 trees). Spacing between rows depends more on the width of your mowing equipment than any arbitrary number. Six-foot centers (in-row, between rows) is a common recommendation.

- (3) Access roads between planting blocks should be

*Adapted from a plan by Mr. John Nutter, Red Pine Farm, Topsfield, MA 01983



wide enough to accommodate any equipment you foresee using on the plantation (tractors, trucks, wagons).

(4) A shelter building is needed for your work crew. Both midsummer shearing and late November/December harvesting occur when the weather is stressful for people.

(5) If your plantation is on land with a homesite, be sure the trees are visible from the house. This proximity offers some protection against vandalism.

(6) You need a barn or shed for sales. If you have a very small "choose-and-cut" operation (250 trees or less/year), your crew shelter may also serve as a sales center.

(7) If at all possible, get clients' cars off the main road into a parking area with an entrance and exit, so traffic can flow easily. Ideally, you should have a parking area that can accommodate at least 5 to 10 cars at one time.

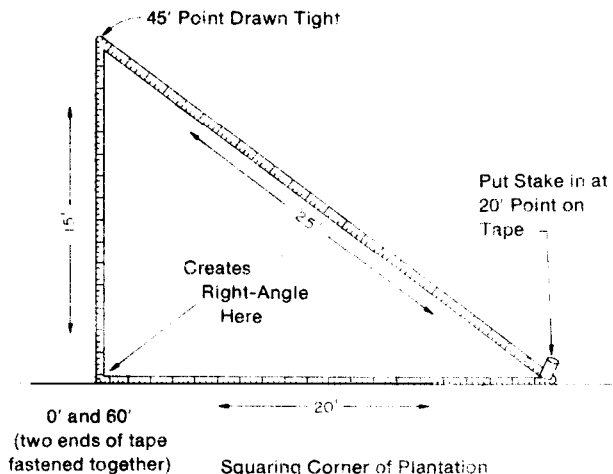
Layout Tips

- Avoid planting on steep slopes for choose-and-cut, because the slopes can be slippery with ice, snow or mud at sales time.
- If at all possible, keep roads (or access lanes) open around and through your plantation to facilitate movement of spray equipment, fire trucks, etc.
- Avoid planting in "frost pockets" or low, marshy areas because the cold air drainage and/or cold, damp soils will slow tree growth and damage new, tender shoots.

How to Lay Out a Planting Block

There are various ways of laying out a plantation in planting blocks of 8 rows by 32 trees. The most accurate way to do so is with a surveyor's transit and compass, but few people want to go to that trouble. The next best thing is preparing a cord or rope (not nylon because it has too much "give") with markers (e.g. colored tape) every 6 ft. Lay off your long outside row, marking where each tree will go with flags or sticks or use a dust gun to mark lime spots. Then lay off the short row at right angles to the one you just completed. An easy way to establish right angles is to take a 60-ft tape, join the 60 ft mark and the 0 point at the corner, measure off the first 20 ft (0-20) and drive a sturdy stake at that point. Then pull the tape around the outside of the stake and pull both sides tight at the 45-ft mark. You have just made a 3-4-5 triangle which always has a 90° angle at its base (see diagram). Since this is a fairly simple measurement to make, you could repeat it two or

three times up the long row to be sure your short row-markers continue to be at right angles to the long row.



You can also use a 6-ft pole to check your distances from row to row and within the rows. Having evenly spaced rows and evenly spaced trees within rows makes it easier to cross-mow your plantation. When allowing access lanes every 8 or so rows, we usually expect to plant 1000 trees/acre rather than 1210 as indicated on the chart below.

Remember, seedlings look very small and lost out in that big plantation, when you plant them, but they will grow, and when they are all 6 ft tall or taller, you'll need every inch of space you've allowed for them.

Number of Trees Required to Plant One Acre At Various Spacings

		Feet Between Rows						
		5	6	7	8	10	12	14
Feet Between Trees in Row	5	1742	1452	1245	1089	871	726	622
	6		1210	1037	908	726	605	519
	7			889	778	622	519	444
	8				680	544	454	389
	10					435	363	311
	12						302	259
	14							222

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