

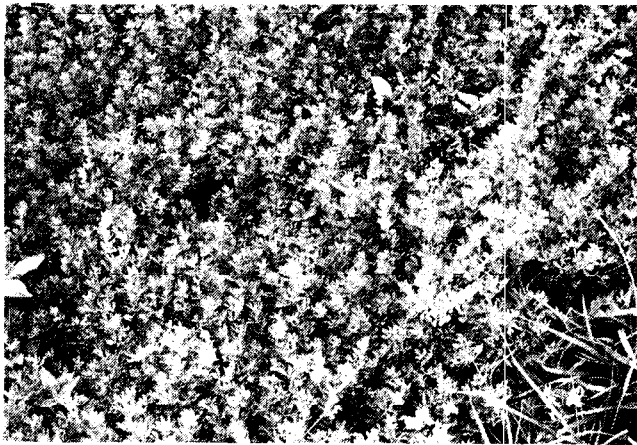
KENTUCKY CHRISTMAS TREE PRODUCTION WORKBOOK

FOR-19



GROUND COVERS

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Birdsfoot Trefoil

Christmas trees typically are planted into the planting site's existing vegetation (fescue, annual and perennial weeds). While many growers make preplant site preparations such as mowing or applying herbicides to kill bands or spots of vegetation, the grower can establish a different cover on the site before planting.

Several factors should help determine whether the time and money involved in changing the cover are justified.

- (1) Competitiveness of the existing cover. Fescue and dense stands of weeds can severely hinder young trees' growth rate and may cause poor form to develop.
- (2) Maintenance required by existing cover. A dense stand of grass and/or weeds may require frequent mowing and/or use of herbicides.
- (3) Fertility level and organic matter content of soil. Sites with low fertility levels and low organic matter content may greatly reduce the trees' growth rate.
- (4) Cash crop potential of existing cover. Evaluate harvesting the cover to increase cash returns from the land (e.g. pasture grasses and alfalfa). Spacing of tree

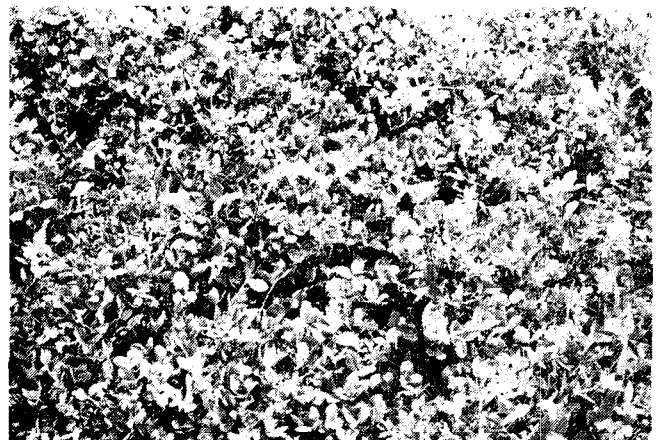
rows can be changed to allow more area for an annual cash crop.

(5) Earlier tree harvest. Cover crops that enhance the trees' growth rate may pay for themselves if the trees can be harvested at least one year earlier.

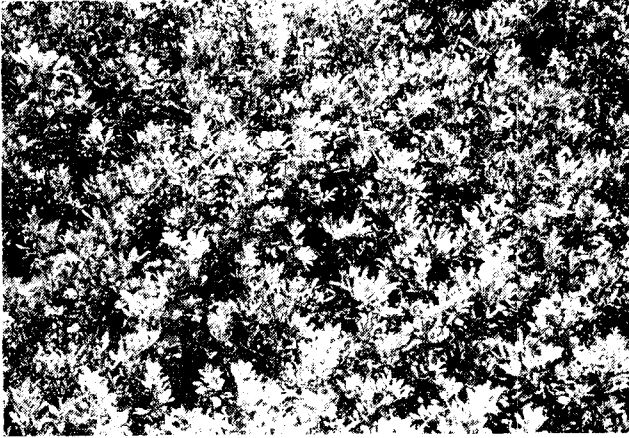
Thus, a desirable cover is noncompetitive or minimally competitive for nutrients, light, water and space, requires little maintenance, returns organic matter and nutrients to the soil, and has potential as a supplemental or additional cash crop.

Few cover crops have all of these characteristics. Consider the following:

- Wheat. (A combine could be used while the trees are young if spacing is adequate.)
- Alfalfa. (Could be mowed and baled as above. Since it is a legume, it will return nitrogen to the soil.)
- Dutch white clover, dwarf sericea lespedeza, birdsfoot trefoil. (These legumes return nitrogen to the soil. They require an inoculum at time of planting.)
- Strawberries. (In rows or between rows. Berries require added maintenance but are a high value cash crop as U-pick.)



Red Clover



Alfalfa

- Vegetables. (As above. Good potential for farmers' market.)

If you change the vegetative cover, do all land preparation and seeding or transplanting well before

tree planting. It may be necessary to seed clovers and some of the other legumes either in combination with benign grasses like red top or bluegrass or at extra high rates to ensure a complete cover when replacing young fescue. Christmas tree seedlings should be planted into the new cover, not at the same time or in advance of the new cover. For example, if you plant a clover crop, the land should be plowed and disked, and the clover seeded the fall before spring tree planting.

Another possibility is to use a green manure crop before planting. A crop such as wheat, soybeans or hybrid sudan grass can add organic matter to the soil, improve aeration and drainage, and increase soil moisture retention. This may be particularly important in heavier soils or ones with high clay content. Christmas trees can then be planted into a green manure crop under a no-till regime.