



## Virginia Cut Holly Production: Alternative Ground Cover

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Before planting holly on your production site, consider the types of vegetation that already grow there. In order to reduce potential competition and maintenance problems, you may want to replace that vegetation with an alternative ground cover.

### Defining Ground Covers

Ground covers are low-growing plants that prevent weed establishment and act as a living mulch. Desirable ground covers compete minimally for nutrients, light, water or space. They require minimal maintenance and return organic matter and nutrients to the soil.

Three factors help determine whether changing an existing ground cover is justified. Ask yourself these questions:

- (1) Could the existing ground cover be detrimentally competitive? If you have tall fescue and dense stands of weeds, they can hinder the growth rate of young hollies.
- (2) What maintenance does the existing cover require? A dense stand of grass and/or weeds requires frequent mowing or herbicide application.
- (3) What is the fertility level and organic matter content of the soil? A site with low fertility levels can reduce tree growth. Ground covers, such as legumes, can fix nitrogen and return it to the soil for use by your hollies. Other covers, including annual rye, can act as yearly green manure crops, returning organic matter to the soil if they are mowed.

Objectives of using ground covers:

- decrease vegetation maintenance
- encourage tree growth
- facilitate other cultural practices and harvesting
- enhance orchard appearance
- prevent soil/water erosion

### Ground Cover Alternatives

Ground cover alternatives include:

Grasses: rye (annual, perennial), perennial bluegrass, redbud, nimbleweed, fescues (creeping red, red, sheep, hard)

Legumes: birdsfoot trefoil, crownvetch, clovers (Dutch white, crimson, Ladino), lespedeza (dwarf, sericea)

*Planting strips killed prior to planting.*



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Using other harvestable crops (alfalfa, wheat, strawberries, pumpkins) as alternative ground covers will impose the cultural requirements of those crops on your holly maintenance regime and will, therefore, generally be impractical to consider.

When selecting an alternative ground cover, consult with you local Virginia Cooperative Extension agent for help in selecting a cover well suited for your location in Virginia.

## Desirable Characteristics

Desirable ground cover characteristics include:

- rapid establishment
- dense growth habit
- slow vertical growth
- tolerance of existing soil and potential drought
- low fertility requirement
- traffic (foot, equipment) tolerance
- will not attract or support wildlife (deer, voles, birds) that could be detrimental to the holly



*White clover, as used here with pine Christmas trees, can be used as a holly ground cover.*

## Ground Cover Establishment

1. Kill all existing vegetation with a herbicide such as Roundup.
2. Test soil and fertilize accordingly. If time permits, grow a green manure crop such as hybrid sudan or alfalfa, and plow the mowed crop into your soil.
3. Cultivate the soil.
4. Seed the ground cover:
  - Clover @ 10 lbs./acre
  - Grasses @ 30-50 lbs./acre, depending upon species.

Seeding time: Best - August/September  
2nd best - March/April

Always establish a alternative ground cover several months prior to planting your hollies to make weed control easier.

5. Limit first year weed growth in your alternative ground cover by using selective herbicides.
6. Prepare planting spots or strips by killing small circles of ground cover where you have staked or flagged for planting.
7. Plant hollies:  
(See VCE Publication 430-467 on orchard layout and planting.)
8. Restrict ground covers near hollies for the first year, using mulch or herbicides.

## Use of Mulches

Where desirable ground covers can't be established, mulch young hollies for weed control. Organic mulches (plant derived) include shredded bark, bark chips, cocoa bean hulls and pine needles. Apply mulches 2-3 inches thick, never touching the holly's stem. Obtain added weed control by using a layer of landscape fabric under the mulch, or by using a circle of fabric alone around each plant.

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