Beginning Farmer Webinar Series: Christmas tree production

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Today’s Presenters

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Major Christmas tree producing areas in the US

Leading Christmas tree producing states

Ranked by Number of Trees Harvested

1. Oregon 6,400,000
2. North Carolina 4,200,000
3. Michigan 2,000,000
4. Pennsylvania 1,000,000
5. Wisconsin 800,000
6. Washington 600,000

Adapted from USDA Census of Agriculture

Christmas Tree Production in Michigan

• 27,000 acres
• 560 commercial farms (>5 acres)
• Sales:
  • Trees: $31 million
  • Greens: $4.1 million

Adapted from USDA Census of Agriculture
Sales and marketing

- Who is going to buy my trees?
  - Choose and cut
  - Wholesale
  - Retail
  - Just for fun

Choose and cut

Wholesale/Retail production

Just for fun
Site selection

- Site factors
  - Climate (general climate & microclimate)
  - Soil
    - Drainage
    - pH
  - Market factors

Species selection

Adaptability
Growth rate
Color
Form
Branch structure
Scent
Needle retention

Principle Christmas tree species

- Firs (Abies spp.)
- Spruces (Picea spp.)
- Douglas-fir (Pseudotsuga)
- Pines (Pinus spp.)

Firs

- Single-needle conifers
- 6-8 Types grown in Michigan
  - Fraser
  - Balsam
  - Canaan
  - Concolor
  - Corkbark
  - Korean
  - Turkish

Fraser fir

- “Cadillac” of Christmas trees
- Excellent
  - Form
  - Needle color
  - Needle retention
- Needs acidic soils
- Good soil drainage
Concolor fir
- Native to western US
- Long, blue-green needles
- Citrus-like scent
- More tolerant of poor soils than other firs

Balsam fir
- Native to eastern North America
- Widely known for excellent scent

Spruces
- Single needle
- Sharp
- 3 types grown in Michigan
  - Colorado blue
  - White
  - Black hills

Colorado blue spruce
- Striking blue color
- Broadly adapted

Douglas-fir
- Native to western US
- Broadly adapted
- Needlecast issues
Pines
- Needles grouped in fascicles
- 2 types grown in Michigan
  - Eastern white
  - Scotch

Scotch pine
- Stress tolerant
- Dark green
- Dense form

Eastern white pine
- Native to eastern US
- Needs acidic soils
- Long, soft needles
- Dense, bushy tree
- Fast growing
Site Preparation

- Considerations
  - Tree planting
  - Initial weed control
  - Future operations (i.e., equipment access)
- Mechanical
- Chemical

Regeneration

- Natural
  - Seed tree
- Artificial
  - Plant seeds or seedlings
- Most US growers plant seedlings

Bare-root seedlings

Nursery-grown transplants
### Planting density

<table>
<thead>
<tr>
<th>Spacing (ft.)</th>
<th>trees / acre</th>
</tr>
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<tbody>
<tr>
<td>4 x 4</td>
<td>2,720</td>
</tr>
<tr>
<td>4½ x 4½</td>
<td>2,150</td>
</tr>
<tr>
<td>5 x 5</td>
<td>1,740</td>
</tr>
<tr>
<td>5 ½ x 5½</td>
<td>1,440</td>
</tr>
<tr>
<td>6 x 6</td>
<td>1,210</td>
</tr>
<tr>
<td>7 x 7</td>
<td>890</td>
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</table>
Vegetation management
- Mechanical
- Cover crops
- Chemical
  - Pre-emergent
  - Post-emergent

Nutrition management
- Growth rate
- Color and quality
- Macronutrients
  - N, P, K
- Micronutrients
  - Manganese, Iron
- Problems often related to soil pH
Fertilization

• Nitrogen
  • Usually added annually
    • 0.5 to 2 oz. per tree
• P, K based on soil test
• Other elements usually based on deficiency or foliar sampling

Pest management

• Insects
• Diseases
• Mammals

• Shoot boring insects
• Pales weevil

• Gall-forming insects
• Cooley’s gall adelgid

• Needle-feeding - Spruce spider mites
Integrated pest management

- Scouting
- Minimize pesticide use
- Use biocontrols
- Identify economic injury thresholds

Shearing and topwork

Machine shearing
Hand shearing

Tree form - Taper

\[
\text{Taper} = \frac{\text{width}}{\text{height}}
\]

Harvest and post-harvest

Harvest methods vary with type of production

- Choose and cut
  - Need to provide customer with easy method to harvest trees
- Wholesale
  - Growers try to minimize number of times tree is handled
The most important factor in post-harvest handling is keeping trees fresh. Maintaining tree water content is critical. Harvested trees need to be kept cool and shaded. Trunks need to be kept in water.

Moisture Content Interpretation:
- **Acceptable** – greater than 100%
  Tree in good condition and likely to rapidly rehydrate under proper care
- **Marginal** – 80 to 100%
  Tree capable of slowly rehydrating under proper care
- **Critical** – less than 80%
  Tree unlikely to substantially rehydrate
Productions costs

- Overhead costs (fixed costs)
  - Land (taxes, interest, rent), insurance
- Variable costs
  - Planting stock, fertilizer, pest management,
  - Labor
- Equipment
  - Initial costs, repair costs, insurance, interest
Additional costs

- Fraser fir
  - Removing cones
    - .85 – 1.00/tree
You don’t make money growing Christmas trees, you make money selling Christmas trees!

• The best time to start your marketing plan is before you plant trees.

How do you plan to market trees?

• Explore market possibilities/Stay alert to market trends
• Talk with other growers
• Choose species
• Start keeping records of activities

How do you plan to market trees?

• Wholesale
• Retail
• Choose-n-Cut
Wholesale
- Can be far from population
- Market large # of trees at one time
- Lower risk – trees sold before cut

Wholesale
- You need to find buyers
- On stump vs. cut
- Labor
- Lower prices

Retail
- Higher risk - trees cut before they are sold
- Choosing a Site
  - Location, rent, may lose site
  - Permits
- Costs of retailing
  - Shipping, tent, display, lighting, help, security etc.
  - Parking
  - Labor
  - Disposing of unsold trees

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Choose and Cut

Choose and Cut Business

- Choose and cut operations account for 25 – 30% of natural tree sales.

Several contributing reasons……

- perception by some of higher quality, better value and wider selection
- tradition and experience involved - e.g. trip "country", family togetherness, photo opportunities, related amenities and experiences
- buying local

Focus is in three primary areas….

1. Product quality
2. Customer service and convenience
3. Enjoyable and interesting experience

Considerations…

- Lower risk
- Distance to consumers
- Access to plantation
  - All weather

Considerations…

- Less tree handling
- Local competition
- Insurance
- Pre-cut trees
- Parking
- Signs
- Equipment
- Advertisement
Conclusions…

• Product

Conclusions…

• Market
  • Know Yourself
  • Customers

Conclusions…

• Promotion

Conclusions…

• Price

“The bitterness of low quality remains long after the sweetness of low price is forgotten.”

Benjamin Franklin

You don’t make money growing Christmas trees, you make money selling Christmas trees!
You don’t make money growing Christmas trees, you make money marketing Christmas trees!

Marketing Christmas Trees

Playing to Win

Photo credits:
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• Marsha Gray, Michigan Christmas Tree Association
• Jill O’Donnell, MSU Extension