Ten Steps to Growing Apples in North Dakota

#1. Select a Good Site
Pick a sunny site that has good drainage and is sheltered from strong winds. Keep out of frost pockets.

#2. Pick Two or More Cultivars
Select hardy cultivars that mature before hard frosts. You need two different cultivars.

#3. Stake Trees
Staked trees will bear earlier and produce higher yields. Staked trees will withstand winds better. Use a 10-foot long, 3/4-inch-diameter electrical conduit pipe. Secure using broad, flexible ties.

#4. Mulch Trees
Shredded bark will conserve moisture and reduce weeds. It moderates soil temperatures, keeping roots cooler in summer and warmer in winter. Mulch protects tree trunks from mowers.

#5. Wrap Trees
White tree guards will reflect the bark-cracking rays of the winter sun. These guards will shield trunks from voles, rabbits and other wildlife.

#6. Protect Trees From Wildlife
Eliminate brushy areas that harbor rabbits and rodents. Chemical repellents will repel low levels of wildlife pressure. White tree guards and wrappings of hardware cloth help. Tall fencing is most effective but often not practical.

#7. Train Trees
Aim for one central trunk with the widest branches of the tree at the base (see back page). The lowest branch is 30 inches off the ground and preferably faces southwest to protect against sunscald. Sturdy branches have a 60 degree angle (10 o’clock and 2 o’clock). Develop scaffolds of branches with gaps (shown on back page) or have branches wind up around the tree, spaced 8–10 inches apart. Keep tree height at 15 feet or lower.

#8. Prune Trees Annually
Prune every March. Remove unfruitful, vertical branches. Maximize air movement and sunlight in the canopy. Prune to outward facing buds.

#9. Prevent Diseases and Pests
Good sanitation is your best defense against diseases and insect pests. Rake after harvest. Traps are available for apple maggot and codling moth. A few sprays of captan, mancozeb or sulfur after buds break will reduce diseases.

#10. Harvest Fruits When Ripe
Use an upward and twisting motion. Ripe fruit comes off easily. The background skin color (seen near the fruit stem) begins to turn yellow.
Selection of Outstanding Cultivars

<table>
<thead>
<tr>
<th>CULTIVAR</th>
<th>FEATURES (cultivars listed in order of ripening)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duchess</td>
<td>Medium to large size; mildly tart taste good for pies and sauce. Shows resistance to scab, rust and fire blight. Ripens in early September. From Russia.</td>
</tr>
<tr>
<td>Goodland</td>
<td>Medium-large apple; creamy yellow with red blush. Ripens in late September. Stores well. Flesh is crisp, juicy and aromatic. Good for pies and fresh eating. From Manitoba.</td>
</tr>
<tr>
<td>Red Baron</td>
<td>Medium-sized apple. Productive tree bears at a young age and tolerates fire blight. From Minnesota.</td>
</tr>
<tr>
<td>Sweet Sixteen</td>
<td>Medium-size, red apple with spicy-sweet, crisp and aromatic flavor. Creamy yellow flesh. Good for fresh eating. From Minnesota.</td>
</tr>
<tr>
<td>Honeycrisp</td>
<td>Most popular apple in Midwest. Sweet and balanced taste; very crisp. Large fruits ripen in late September and store well. Marginally hardy in Zone 3. From Minnesota.</td>
</tr>
</tbody>
</table>

Training and Pruning Young Trees

- **Top for leader**
  - 24 inches for third set of scaffold branches
  - 24-inch gap
  - 24 inches for second set of scaffold branches
  - 24-inch gap
  - 24 inches for first set of scaffold branches
  - 24 to 36 inches to first branch

- Remove branches with narrow crotches
- Don’t allow branches to grow taller than the leader
- Remove inward facing branches and branches crossing over one another
- Don’t allow upper branches to get long and shade lower branches
- 60 degrees is ideal
- Remove vertical branches (water sprouts)
- Remove drooping branches
- Remove suckers
- Remove drooping branches