

# 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 Varieties

Select hardy varieties that mature before hard frosts. You need two different varieties of apples or crabapples within 50–100 feet of each other.

## #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 with 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 near the ground. The first branch starts at 30 inches and preferably near the southwest side 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 winding up around the tree, spaced 8–10 inches apart. Keep the tree's 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. Control Diseases and Pests

Good sanitation is your best defense against diseases and insect pests. Rake after harvest. A few sprays of captan, mancozeb or sulfur after buds break will reduce diseases. Traps may be hung to monitor for apple maggots and codling moths. Cultivate weeds or spray with glyphosate.

## #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.

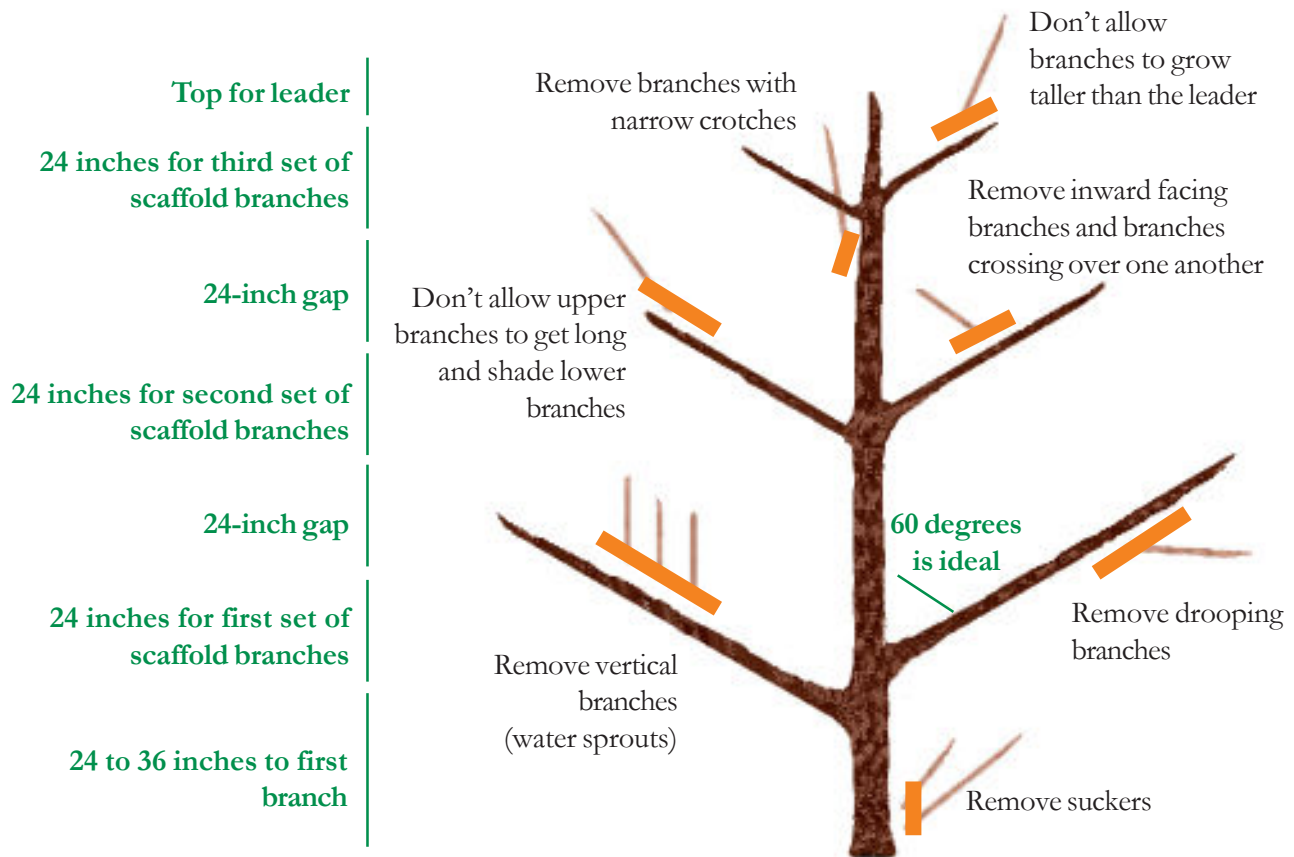
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EXTENSION

# Outstanding Varieties for North Dakota (Zone 4)

VARIETY	FEATURES (varieties listed in order of ripening)
<b>Zestar!</b>	Excellent early apple. Crisper and better storage life than other early apples. Striped red skin. Marginally hardy in Zone 3. From Minnesota.
<b>Duchess</b>	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.
<b>Goodland</b>	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.
<b>Red Baron</b>	Medium-sized apple. Productive tree bears at a young age and tolerates fire blight. From Minnesota.
<b>Sweet Sixteen</b>	Medium-size, red apple with spicy-sweet, crisp, aromatic taste. Creamy yellow flesh. Good for fresh eating. From Minnesota.
<b>Honeycrisp</b>	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.
<b>Haralson</b>	Top apple in Upper Midwest for decades before ‘Honeycrisp’. Juicy and pleasantly tart. Especially good for cooking. Easy to grow. Resists fire blight. From Minnesota.

## Training and Pruning Young Trees



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