



# EMPIRE

<b>Origin</b>	New York State Agricultural Experiment Station, Geneva, New York, 1966.
<b>Parentage</b>	McIntosh x unknown (Probably Red Delicious).
<b>Availability</b>	Mid October to April or later.
<b>Source</b>	Available from most commercial nurseries.
<b>Quality</b>	Sprightly tang, nice sweet to acid balance. Very crisp, firm, juicy, fairly distinctive.

## Fruit:

<b>Size</b>	Medium to small, very uniform. Needs a combination of good nutrition, proper pruning and adequate spray thinning followed by hand culling if a high proportion are to be over 2½" diameter. Pruning should assure good light penetration with removal of weak spurs and/or entire coverage limbs; thinning to singles is a must.
<b>Surface</b>	Smooth, has a waxy bloom, will take a high polish.
<b>Ground Colour</b>	Greenish yellow.
<b>Over Colour</b>	Well coloured, somewhat striped to full dark red on the exposed cheek.
<b>Flesh Colour</b>	Creamy white, may have a greenish tinge.

<b>Harvest Season</b>	Late September to early October.
<b>Storage</b>	October to December in cold, to June or later in Controlled Atmosphere.
<b>Strains</b>	Several are known - Crown, Royal, Thome.

## Tree:

<b>Vigour</b>	Moderate.
<b>Habit</b>	Rather spreading, fairly spurry, somewhat dense.
<b>Precocity</b>	Bears early.
<b>Fruit Placement</b>	On spurs and shoots.
<b>Bloom Period</b>	Mid season.
<b>Pollination</b>	By other mid season diploids. Somewhat sensitive to blossom frosts.
<b>Nutrition</b>	Requires good nutrition. Heavy cropping may induce potassium deficiency.
<b>Crop</b>	Bears well and not too difficult to keep from becoming biennial.
<b>Synchrony</b>	Spot picking does not appear necessary unless to adjust fruit sizes.
<b>Adaptation</b>	It does well in New York State and in Ontario which have longer and warmer summers than Nova Scotia.
<b>Disease Reaction</b>	Susceptible to scab, slightly susceptible to powdery mildew, juniper rust: high storage CO <sub>2</sub> may induce scald-like surface browning.
<b>Insect Reaction</b>	Nothing of note.
<b>Rootstock</b>	Intensive culture with selected dwarf/semi-dwarf rootstocks is a distinct possibility; this would improve fruit size and the tree type is suitable.

## Comments:

Empire and Spartan fit into the same market niche but will require more management skill to produce a high percentage of export sized fruit.