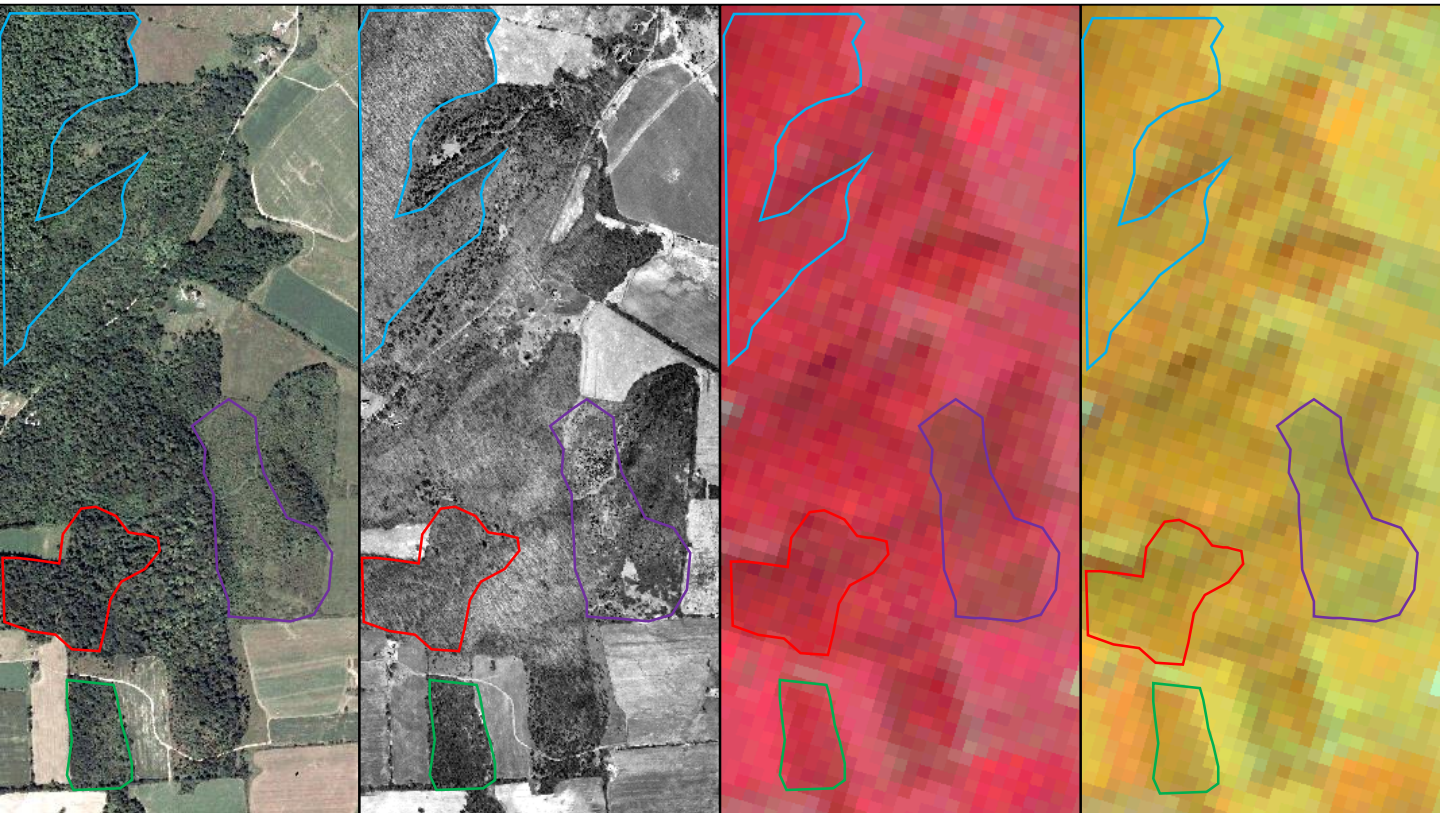


# Deciduous Forests

Deciduous forests in Vermont are comprised of species who go through a cycle of their leaves changing color then falling off in the autumn followed by new growth in the spring. Deciduous forests are most easily identified using a combination of leaf-off (late fall or early spring) and leaf-on (summer) imagery. They are most often confused with coniferous forests or mixed forests and shrubs.

Deciduous Forest
Shrub
Coniferous Forest
Mixed Forest



NAIP	Vermont Orthophoto Program	Landsat-5	Landsat-5
Sensor: Visible true color film	Sensor: Visible panchromatic film	Sensor: Thematic Mapper	Sensor: Thematic Mapper
Resolution: 1-meter	Resolution: 0.5-meter	Resolution: 30-meter	Resolution: 30-meter
Bands: True Color (1-2-3)	Bands: Panchromatic	Bands: CIR (4-3-2)	Bands: Pseudo Color (4-5-3)
Date: Leaf-on (mid-August)	Date: Leaf-off (late March)	Date: Leaf-on (early September)	Date: Leaf-on (early September)

Deciduous forests in leaf-on, high-resolution true-color imagery, such as NAIP, are green, but the actual tone will vary. They will typically be a brighter green than mixed or coniferous forests, but this is not always the case. Furthermore the tone of deciduous forests can be influenced by topographic shadows. The texture will appear rough due to the presence of shadows. There is no standard pattern, although patterns due to environmental conditions, such as soil type, may emerge. Shrubby areas will lack dark textured appearance of deciduous forests.

Deciduous forests in leaf-off, high-resolution visible wavelength panchromatic imagery typically will appear bright. The leaf off conditions expose the forest floor, which void of photosynthetic vegetation, creates the bright tone. They will be highly textured with a noticeable pattern similar to that of matchsticks lying on the ground. This pattern is result of the shadows thrown by the trees, the trees themselves are rarely visible. Deciduous forests can be distinguished from coniferous forests as the latter are much darker due to the presence of needles. In addition, coniferous trees produce cylindrical shadows. Deciduous forests are most easily confused with shrubby areas, but shrubby areas typically lack the matchstick pattern.

In moderate resolution leaf-on color-infrared imagery deciduous forests typically appear as a moderately toned magenta color. They are darker than lawns, agricultural fields, and shrubs, but brighter than coniferous and mixed forests. Topographic shadows can influence the tone, causing confusion with deciduous forests. There is often a noticeable texture, resulting from canopy shadows, causing a mix of brighter and darker pixels.

In a Landsat 4-5-3 composite image deciduous forests typically appear as a moderately toned yellow to orange color. They are darker than lawns, agricultural fields, and shrubs, but brighter than coniferous and mixed forests. Topographic shadows can influence the tone, causing confusion with deciduous forests. There is often a noticeable texture, resulting from canopy shadows, causing a mix of brighter and darker pixels.