

# Mountain Living

This week's

Sept. 17- Sept.26



"Fall is in the air" photo by Cheri Ratliff

Winter parking lot: We are changing the sticker color this winter to red, so everyone who uses the parking lot will need to get a new red sticker from Security.

Vehicles can be brought to the parking lot starting Oct. 15, 2007

Three of the twenty diesel plug-ins have been reserved. See Security to reserve your spot. The fee is \$100 for the season.

The enclosed trailer fee is \$50, to park in the parking lot. See security to park your trailer.

The community at Arrowhead would like to thank Mike Goddard, who has resigned from his security post, for his service.

2006 Polaris Switchback for sale: \$4500. For more information call Reine with Security. 862-8362



**The Splendor of Autumn** *Photo by Cheri Ratliff*

Every autumn we revel in the beauty of the fall colors. The mixture of red, purple, orange and yellow is the result of chemical processes that take place in the tree as the seasons change from summer to winter.

During the spring and summer the leaves have served as factories where most of the foods necessary for the tree's growth are manufactured. This food-making process takes place in the leaf in numerous cells containing chlorophyll, which gives the leaf its green color. This extraordinary chemical absorbs from sunlight the energy that is used in transforming carbon dioxide and water to carbohydrates, such as sugars and starch.

Along with the green pigment are yellow to orange pigments, carotenes and xanthophyll pigments which, for example, give the orange color to a carrot. Most of the year these colors are masked by great amounts of green coloring.

#### **Chlorophyll Breaks Down**

But in the fall, because of changes in the length of daylight and changes in temperature, the leaves stop their food-making process. The chlorophyll breaks down, the green color disappears, and the yellow to orange colors become visible and give the leaves part of their fall splendor.

The autumn foliage of some trees show only yellow colors. Others, like many oaks, display mostly browns.

All these colors are due to the mixing of varying amounts of the chlorophyll residue and other pigments in the leaf during the fall season.

## **Why Are Some Autumns More Colorful?**

Temperature and moisture greatly influence autumn color. Since each of these vary greatly, no two autumns are ever alike. A succession of warm, sunny days and cool, but not freezing nights seems to bring about the most spectacular color displays. Since carotenoids are always present in leaves, yellow and gold colors are fairly constant from year to year. In order for the brilliant scarlet, purple and crimson colors to develop, bright sunlight in the early fall is needed. Bright sunny days increases food production in trees and plants. These sugars are trapped in the leaves spurring the production of anthocyanin pigments, providing the red tints to fall foliage.

The amount of moisture in the soil also affects autumn color. A late spring, or a severe summer drought, can delay the onset of fall color by a few weeks. A warm period during fall lowers the intensity of autumn color. Trees defoliated by insects during the growing season may also show less fall color. (From the SUNY College of Environmental Science and Forestry and United States Department of Agriculture )