

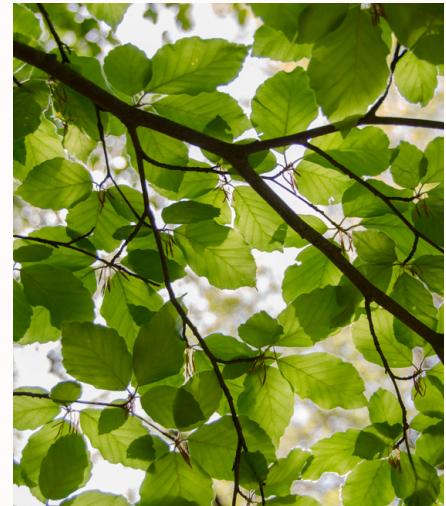
THE OUTSIDER

Thoughts from Illinois Extension Horticulture Educator Emily Swihart



WHY DO TREE LEAVES TURN COLOR?

Summer has come and gone, autumn has arrived, and although our vegetable gardens are winding down, most of our favorite florals are waning and we are preparing for the great pumpkin spice debate, many of our trees will soon be putting on a spectacular show. But why do trees change their leaves from green to a wide array of warm hues in the fall?



THE PURPOSE OF A LEAF

Plants are defined by their ability to create their own food through a process known as photosynthesis. This is a complex chemical reaction within the leaf structure of any plant that convert solar energy, carbon dioxide and water into carbohydrates (a.k.a. sugars) and oxygen. This reaction is the singular reason that the entire animal kingdom exists. But what does this have to do with the color of the leaves? I'm glad you asked. At the cellular level, plant cells contain something called chloroplast which absorb energy from the sun. A part of the chloroplast is a light absorbing pigment called chlorophyll. Chlorophyll absorbs energy from blue and red-light waves while reflecting green-light waves. The outcome...plant leaves appear green. Tada!





CHANGING COLORS

As the summer season turns into autumn, the days grow shorter and temperatures cool. This is a signal to trees that winter is approaching and it is time to shut down the food production factories and prepare for dormancy. During this time, chlorophyll breaks down and is no longer capable of influencing the visible color of the plant- green is no longer the only color reflected by the leaves. The spectacular colors we enjoy in the autumn have been there all year long, we couldn't see them because they were hidden within the leaf and used for photosynthesis.

"Autumn is a second spring when every leaf is a flower."
- Albert Camus

LEAF VIEWING

For many people, the changing colors of our trees and woodlands is irresistible. Affectionally known as leaf peeping, timing an autumn drive to view leaf colors at their peak can be tricky. There are many factors that influence when trees will have peak color but there are resources to help improve your chances. According to the Illinois Department of Natural Resources, the second week of October is estimated as peak season in northern Illinois and along the Mississippi River. For up-to-date information, check out enjoyillinois.com as the autumn season progresses.

OUTSIDER ACTION

- Take a road trip near or far to enjoy the fall colors.
- Visit a near by arboretum or nature preserve.

Join our Tree Walk, Oct 6 at 1 pm, Chippianock Cemetery,
Rock Island, IL Register @ go.illinois.edu/TreeWalk



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