



“Fruit Facts” – Monday, April 8th, 2024

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Total Solar Eclipse is Today!



Good to Know

Did you know that during the solar eclipse expected for today in the afternoon, some of the fruit trees located along the route of the moon’s shadow won’t be able to ‘farm the sunlight’ in the Lake Ontario fruit region?

A significant amount of people from Rochester, surrounding areas, out-of-state visitors, and even international visitors from all over the world have come to the city to eyewitness a total solar eclipse as it passes some parts of our fruit region today. For many of us, it may be a once-in-a-life opportunity to watch and experience, since another total solar eclipse in the United States isn’t expected to happen again until August of 2044!

For this very special edition of the CCE LOF Fruit Facts this Monday morning and in anticipation of the solar eclipse, we would like to invite you to reflect about the importance of the sunlight for tree photosynthesis.

Life on earth ultimately depends on energy derived from the sun. Photosynthesis is the only process of biological importance that can harvest this energy. In addition, a large fraction of the planet’s energy resources results from photosynthetic activity in either recent (biomass) or ancient (fossil fuel) times.

The term ‘photosynthesis’ literally means ‘**synthesis using light**’. Fruit trees use solar energy to synthesize organic compounds that can’t be formed without the input of energy. Energy stored in these molecules can be used later to power cellular processes in the tree and can serve as the energy source for other necessary processes.

The most active photosynthetic tissue in tree fruits is the mesophyll of the leaves. Mesophyll cells have many chloroplasts, which contain the specialized light-absorbing green pigments, the chlorophylls. In photosynthesis, the tree uses solar energy to oxidize water, thereby releasing oxygen, and to reduce carbon dioxide into organic compounds, primarily sugars.

We hope you enjoy the eclipse today, and that it is an auspicious start to our 2024 growing season!

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