

Fall Colors Podcast #2

Transcription

Title: "Effects of Drought and Excessive Precipitation on Fall Colors"

[Music plays]

Narrator: I'm Kelly van Frankenhuyzen with the U.S. Forest Service Northern Research Station. I recently spoke to Will Dienst, an Eastern Region Natural Resource Staff Officer about fall colors in Southeastern Ohio.

Will Dienst: I'm Will Dienst, Wayne National Forest. Currently the fall colors here are at about forty percent to peak, meaning peak- the best showing of fall colors - would be in about ten days in the National Forest. Between now until the 25th of October there should be some fall color around for folks to come and check out. It's a very popular time to camp and hike and just be outside, it's very pleasant. Lake Vesuvius is a good place to see fall colors- the lake would be there, certain times of the day you might get some good reflections off the lake with leaf colors.

Narrator: I'm joined today by Kevin Smith and Paul Schaberg to discuss the effects that drought and excessive precipitation may have on the variations in fall colors.

Paul Schaberg: I'm Paul Schaberg a research plant physiologist with the U.S. Forest Service Northern Research Station in Burlington, Vermont.

Kevin Smith: My name is Kevin Smith and I am a plant physiologist at the U.S. Forest Service lab in Durham, New Hampshire.

Paul Schaberg: We had talked earlier about two big factors that influence fall colors are shortening days and low temperatures that are common in the fall. But, although those are two very important triggers for changes in fall color, there's actually a lot of other stressors on the landscape that can both speed the loss of that green chlorophyll and trigger that production of red anthocyanins. The list of triggers is fairly long. (laughs)

Kevin Smith: Part of how this particular season, which has been a dry one, can affect fall foliage... the first thing to understand is that the dry conditions vary across the landscape, that it's not been uniformly dry at every locations and also the soil conditions and the environment that the tree is in makes a big difference in the amount of stress the tree is under at the start of the fall foliage season, so, that comes into play as well.

Paul Schaberg: Following up on what Kevin was saying, drought can kind of have mixed influences on fall color and that mix depends on how severe the drought is, and when that drought happened. So, if it's a severe drought, the leaves go into a negative carbon balance, they're losing water and not taking up carbon from photosynthesis, but actually losing it through respiration.

Kevin Smith: Another angle on the moisture part is that if there is a lot of moisture early in the growing season, late spring or early summer, that sometimes can promote leaf diseases, foliar diseases that can reduce leaf health and leaf coloration later in the growing season, in the fall. So that's where the events that are throughout the growing season affect what we end up seeing for fall foliage.

Narrator: The Eastern Region of the National Forest System includes some of the most spectacular color in the nation. You can find out about the current color condition by visiting the Region web-site at www.fs.usda.gov/R9 where they post weekly updates throughout the season, located on the home page slider.

Narrator: For more information on the Forest Service's Northern Research Station "Science of the Season's" webpage, visit www.nrs.fs.fed.us/seasons

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