

Anyone Growing Hazelnuts?

By AI Chomica - August 2020

Although I had written an article on hazelnuts in the February 2015 newsletter, observations on our trees over the last five years have prompted me to write this article. Over time I have seen that hazelnuts have the amazing ability to live in the past, the present and in the future--all at the same time! Also amazing is that they carry an embryo in the growing tips of the branches under delayed implantation.

Allow me to explain. When a hazelnut is living in the present, that is just what all other plants do. It has green leaves, collects daily sunlight, drinks water and sometimes feeds bugs. But



how can a plant live in the past? The female flowers do it on a regular basis.

This small pink thing on the end of a branch is a female flower. It is tiny with each pink tendril smaller than a hair and is usually not noticed with the human eye. This flower is blooming on December 4 and will be pollinated by wind from the male catkins of another compatible tree. Once pollinated the embryo goes

through a delayed implantation and will not start to form into a nut until six months later in June. This is how it lives in the past.

And what about the future? Well, this second image shows the male flower, or catkin, as it is just starting to form. This image was taken at the beginning of July. The tree is planning ahead because this catkin will not shed pollen to pollinate those little pink flowers until December or January of the following year – six months later! The catkins can get quite long and when ready for pollination they spread out and elongate.

The wind will carry this pollen for miles. One day during a strong windstorm a gust of wind carried a huge cloud of yellow pollen over me that made me cough and felt like I had sand in my eyes. The strategy for pollination by



wind means shedding clouds of pollen in the hopes of getting snagged by those tiny pink tendrils. The pollination strategy appears to last for a couple weeks with some varieties flowering earlier or later by just a few days from each other. The well-planned orchard will have several varieties to cover off various flowering and pollen shedding times.



A couple years back I had noticed a small pink flower on a branch that I walked by all the time. Then as summer rolled on, I noticed the flower did not produce anything yet there was a nut forming on the end of the new growth. It puzzled me enough to conduct an experiment the following year. I

took a male catkin and hand-pollinated the female flower. I made a paint mark on the branch about $\frac{1}{4}$ inch from the flower as can be seen by the blue circle on the far right. The blue dot beside it shows where the female flower was during pollination in January. By the time June rolled around the branches had grown about six inches long. The flower that produced the nut had transported the fertilized embryo in the new growth for six months before triggering the nut to form. I don't know if any other plant does such a thing and many people don't think it is possible until I show them the paint mark and tell them this same story. A garden can reveal new secrets almost every day of the year...