

INSIDE GRUNDY COUNTY
By Bill Arndorfer
Grundy County Extension Education Director
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Have you ever been a bit confused on what the word “biennial” really refers to? Biennial could refer to life cycle, fruit bearing or growth pattern. Most people understand annuals and perennials but sometimes there is some confusion as to what a biennial is. I recently received an e-mail from Donald Lewis, Extension Entomologist with Iowa State University in which he shared the explanation for “biennial” as defined by Eldon Everhart, Commercial Horticulture Extension Field Specialist. This was in response to a discussion held with a group of Master Gardeners.

“The word "biennial" means occurring every two years. Biennial life cycle, biennial bearing, and biennial growth pattern are three different terms that describe different aspects of horticulture.

Biennial life cycle is used to describe plants with life cycles that normally take two growing seasons to complete. Biennial plants grow from seed the first season and form a rosette of leaves but no flowers. In the second season the plants produce flowers and fruits with seeds and then the plants die.

Biennial bearing occurs when plants have "on" years and produce an abundant crop, then the following year they have an "off" year with little or no fruit produced. (Of course, plants don't turn "on" and "off" like a light switch, but you get the point.) Some fruit trees have a tendency to bear heavily one year and sparsely the next. Apple cultivars that are very prone to biennial bearing include 'Lodi' and 'Haralson' but many other apple and crabapple cultivars have a

tendency (more or less) to alternate bearing. Other examples of plants that often have a biennial bearing habit include red oaks, black walnuts, and some shade trees. The biennial bearing tendency has a genetic component as well as being influenced by environmental factors.

Biennial growth pattern occurs in perennial plants such as raspberries where the aboveground growth lives for 2 growing seasons. They produce stems that do not flower the first year but flower the second year and then those stems die. Raspberries have perennial root systems and biennial canes. Canes produced during spring and summer (primocanes) will produce fruit on the same canes the following summer (floricanes). The canes will then die back to ground level during the winter.”

I hope this brief coverage will better define for you the difference between biennial life cycle, biennial bearing and biennial growth pattern. For other questions on horticultural issues, contact the Grundy Office of ISU Extension at 319-824-6979 or talk with a Master Gardener.