**Cedar Rust Differences - 2013**

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|  | [**Cedar-apple Rust**](http://urbanext.illinois.edu/focus/cedarapplerust.cfm) | [**Cedar-hawthorn Rust**](http://urbanext.illinois.edu/focus/cedarhawthornrust.cfm) | [**Cedar-quince Rust**](http://urbanext.illinois.edu/focus/cedarquincerust.cfm) |
| **Deciduous hosts** | Apple/crabapple | Hawthorn, apple/crabapple, sometimes pear, quince, serviceberry | Many of the genera in the rose family. More common ones attacked in IL include mountain ash, hawthorn, flowering quince, and serviceberry. |
| **Affected plant parts** | Mostly leaves | Mostly leaves occasionally fruit, stems and thorns | Mostly thorns, new twigs and fruits. Sometimes petioles and veins of leaves |
| **Leaf spot symptoms** | Start as greenish yellow then yellow followed by orange (black spots[spore pustules] may form in orange), there is generally a reddish halo between infected lesion and healthy tissue | Start as yellow spot followed by orange (black spots [spore pustules] may form in orange). | Basically none except upon close inspection of veins and petioles that are swollen and occasional chlorotic spots on some rosaceae hosts. |
| **Aecial spore release** | As air dries out in a.m. | As air dries out in a.m. & during rains | As air dries out in a.m. & during rains |
| **Evergreen hosts** | Mostly Eastern red cedar in Illinois & a few other junipers not commonly grown in Illinois. | Eastern red cedar; Rocky Mountain, common and prostrate junipers as well as a few not commonly grown in Illinois. | Eastern red cedar, common, creeping, prostrate, Rocky Mountain, and savin junipers. |
| **Gall shape** | Kidney shaped to round | Flat on twig side to round | Elongated swelling of the twig |
| **Gall appearance** | Dimples/depressions by fall where telial horns develop the following spring | Raised "bubble/blister" like appearances by fall where telial horns develop the following spring. | Spindle shaped that has rough bark appearance after telia production is finished. |
| **Telial horn appearance** | Long and thin | Short and stubby | Orange bark scum |
| **Number of years telia are produced** | One year (spring following gall development) | May produce telia horns for several growing seasons/years. | Many years – sometimes for more than 20 years. |
| **Death of twig** | Twig almost always dies | Twig seldom dies | Twigs seldom die. |
| **Distance between hosts that spores can travel to cause infection** | Usually within several hundred feet but possible for several miles | Usually within several hundred feet but possible to 11 or more miles | ? |