Water Now Minimize Winter Injury

By: Rosie Lerner, rosie@purdue.edu

Dry summers are not that unusual in Indiana. Of particular concern this year is that the dry spell is lasting well into autumn, putting plants in poor condition to get through the winter.

![Indiana drought conditions as of September 29, 2020](image)

Figure 1 from the US Drought Monitor shows that much of Indiana remains abnormally dry to under moderate drought. While some areas are expected to receive rain in coming weeks, it likely won’t be enough to completely offset the moisture deficit.

Newly planted trees, shrubs and perennial flowers will be at most risk of winter injury from desiccation. Established plants may tolerate drought better, but they will be more susceptible to winter injury if they go into winter in stressed condition.

![Rhododendron desiccation](image)

![Wilted hydrangea](image)

Woody plants, especially evergreens, are susceptible to drying out over winter, broad-leaved evergreens even more so. Even dormant plants in winter continuously lose water through transpiration. Once the ground is frozen, the plant’s roots are not able to take up water to replace that which is lost through the tops. The result is drying buds and twigs, and leaves in the case of evergreens. Sunny, windy conditions cause water to be lost from the tops more rapidly, further aggravating the situation. Broad-leaved evergreens are particularly vulnerable, since they have considerable leaf surface from which to lose water.
Next year’s growth is determined by buds that formed in late summer and early fall when much of the state has been under extended dry conditions. Flower buds for many spring flowering plants also develop during that time. So even if plants aren’t showing symptoms now, the damage may become apparent next season.

Making sure the plants have a sufficient supply of soil moisture before the ground freezes will help to fight the winter battle. Where feasible, water gently but deeply, every 7-10 days.