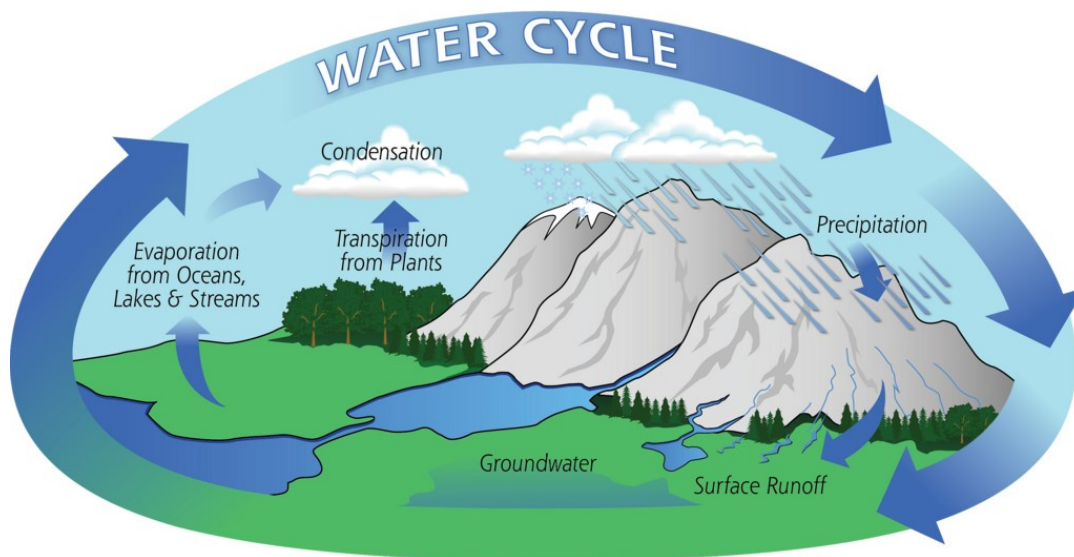




Ag101: Soil Water Cycle



Water is the most limiting factor affecting plant growth throughout much of the world. The amount and frequency of rainfall received during the growing season is as important as the total annual **precipitation**. Dunn County receives on average 32 inches of precipitation annually, with about two-thirds coming during the growing season.

Infiltration is the process by which water on the ground surface enters the soil. Infiltration is very dependent on the physical properties of the soil, however, it can be improved by limiting tillage, preventing soil compaction, and planting cover crops.

Evapotranspiration is a combination of water loss from evaporation from soil plus transpiration from plants. **Transpiration** is the main method of soil moisture loss after the crop has formed a closed canopy.

Irrigation is the controlled application of water to supply water needed for crop growth. Irrigation uses weather forecasts to schedule water applications on fields.

The impact of raindrops onto bare soil can do a lot of damage. Fields that are not managed properly may be prone to soil erosion and nutrient runoff. This may lead to water quality issues, as seen in the Red Cedar River Basin. Improving water infiltration and maintaining ground cover on fields year-round may greatly decrease damage to soils from falling precipitation.

Source: Schulte and Walsh. *Management of Wisconsin Soils*. Extension publication A3588, P21 to 26

For more information please visit Extension Dunn County website at <https://dunn.extension.wisc.edu/>