## FUN FACES OF WISCONSIN AGRICULTURE CHRISTMAS TREES AND THE ENVIRONMENT



## It starts with soil - Soil Profile and Horizons O Horizon- contacts living materials and O Horizon humus (decaying leaves, needles, plants) A Horizon- This layer is made mostly of A Horizon minerals and plant roots. There is a lot of humus here so the color is often very dark. **B** Horizon B Horizon- Also known as the subsoil, this layer has less organic matter and is often lighter in color. C Horizon- Contains parent material that C Horizon has been slightly weathered. R Horizon- The lowest horizon. It is a solid R Horizon rock layer which is called bedrock.

How it all happens: Soil formation is a slow process! It takes 100 years to form 1" of soil. New soil starts from parent material which could be organic material, volcanic ash, sediment, or rock. The weathering process is caused by wind, rain, freezing and thawing, chemical activity and other factors. The climate of an area affects how much precipitation there is and the temperatures. The parent material is broken down into smaller particles over time which creates different layers (horizons). Organic matter (plants and animals) plays an important role in soil formation because of the decomposition and activity they create. Plant roots that move into the layers also affect the amount of air and water that mix with the layers. Humans cause changes in soil formation with buildings that are put up, agricultural practices, and movement of the soil. New soil is always being formed — it's just a slow process!

## Christmas trees and recycling

- <u>Air</u> Photosynthesis is the synthesis of sugar from light, carbon dioxide and water, with oxygen as a waste product. In other words, trees absorb carbon dioxide and send out oxygen!
- Soil Christmas trees help hold soil in place (by their roots), protect water supplies and provide shelter for wildlife.
- Prevent artificial trees from going into landfills- Artificial trees are usually made with petroleum-based products. It takes many years for the trees to breakdown in landfills. The average artificial Christmas tree is used for 6-9 years.
- Re-use that live tree- people use "live" trees in pots that can be planted after the
  holidays. Trees can also be chopped up for mulch, made into decorations or used for
  wildlife habitat.