

Carbon Farming

Agroforestry and Soil Data

Carbon farming is a term for a variety of agricultural practices that sequester and store atmospheric carbon into the soil and in the roots, wood and leaves of plants.

Central Traits of Agroforestry Practices

Intentional
combinations of trees with crops and/or livestock—a whole unit, rather than as individual elements

Intensive
management—to maintain their productive and protective functions

Interactive
between the components—support the biological and physical interactions among tree, crop and animal components

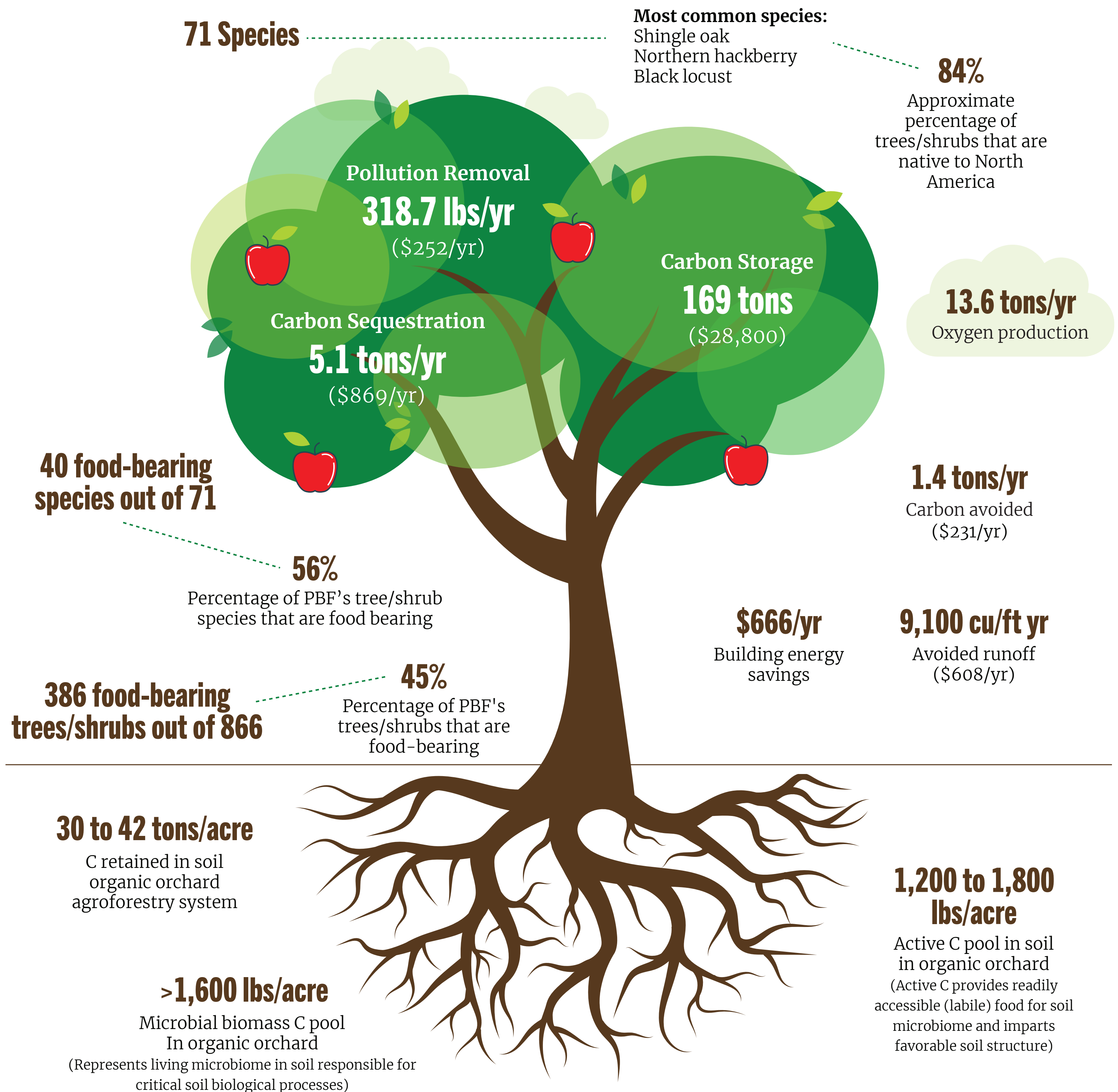
Integrated
agroecosystem—components are structurally and functionally combined into an integrated management system

Interrelational
maintains soil health, promotes soil microbial diversity, cycles nutrients, improves soil structure, assures provision of ecosystem services

Prairie Birthday Farm (PBF) Key Statistics:

West Central Missouri, Clay County

866 trees/shrubs on 14.1 acres



- Other information to consider:**
- Biochar amendment in organic orchard enhanced both SOC and AC by about 33%
 - All C pools were higher in the agroforestry system by about 30% and 50% relative to adjacent unmanaged cool-season grass and row crop field sites, respectively
 - Active C (AC) and microbial biomass C (MBC) are pools within the total soil organic C (SOC) content



Photos: Pawpaw (*Asimina triloba*), Spicebush (*Lindera benzoin*), Hazelnut (*Corylus americana*), Warren Pear (*Pyrus communis* x), Pecan (*Carya illinoensis*)



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