




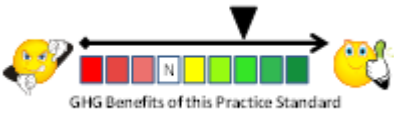
NRCS Practice Standards for Greenhouse Gas Emission Reduction and Carbon Sequestration

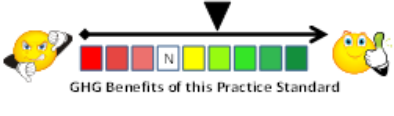
Information about each NRCS Practice Standard can be found [here](#):


Qualitative Ranking N=Neutral	Practice Code	Practice Standard	Beneficial Attributes
 <p>GHG Benefits of this Practice Standard</p> <p>Practices with the highest greenhouse gas benefit</p>	327	Conservation Cover	Establishing perennial vegetation on land retired from agriculture production increases soil carbon and increases biomass carbon stocks.
	329	Residue and Tillage Management, No Till/Strip Till/Direct Seed	Limiting soil-disturbing activities improves soil carbon retention and minimizes carbon emissions from soils.
	366	Anaerobic Digester	Biogas capture reduces CH ₄ emissions to the atmosphere and provides a viable gas stream that is used for electricity generation or as a natural gas energy stream.
	367	Roofs and Covers	Capture of biogas from waste management facilities reduces CH ₄ emissions to the atmosphere and captures biogas for energy production. CH ₄ management reduces direct greenhouse gas emissions.
	372	Combustion System Improvement	Energy efficiency improvements reduce on-farm fossil fuel consumption and directly reduce CO ₂ emissions.
	379	Multi-Story Cropping	Establishing trees and shrubs that are managed as an overstory to crops increases net carbon storage in woody biomass and soils. Harvested biomass can serve as a renewable fuel and feedstock.
	380	Windbreak/Shelterbelt Establishment	Establishing linear plantings of woody plants increases biomass carbon stocks and enhances soil carbon.
	381	Silvopasture Establishment	Establishment of trees, shrubs, and compatible forages on the same acreage increases biomass carbon stocks and enhances soil carbon.

Continuation...			
 <p>GHG Benefits of this Practice Standard</p>	512	Forage and Biomass Planting	Deep-rooted perennial biomass sequesters carbon and may have slight soil carbon benefits. Harvested biomass can serve as a renewable fuel and feedstock.
	590	Nutrient Management	Precisely managing the amount, source, timing, placement, and form of nutrient and soil amendments to ensure ample nitrogen availability and avoid excess nitrogen application reduces N ₂ O emissions to the atmosphere.
	592	Feed Management	Diets and feed management strategies can be prescribed to minimize enteric CH ₄ emissions from ruminants.
	612	Tree/Shrub Establishment	Establishing trees and shrubs on a site where trees/shrubs were not previously established increases biomass carbon and increases soil carbon. Mature biomass can serve as a renewable fuel and feedstock.
	666	Forest Stand Improvement	Proper forest stand management (density, size class, understory species, etc.) improves forest health and increases carbon sequestration potential of the forest stand. Managed forests sequester carbon above and below ground. Harvested biomass can serve as a renewable fuel and feedstock.

Qualitative Ranking N=Neutral	Practice Code	Practice Standard	Beneficial Attributes
 <p>GHG Benefits of this Practice Standard</p> <p>Practices with high greenhouse gas benefits</p>	332	Contour Buffer Strips	Permanent herbaceous vegetative cover increases biomass carbon sequestration and increases soil carbon stocks.
	391	Riparian Forest Buffer	Planting trees and shrubs for riparian benefits also increases biomass carbon sequestration and increases soil carbon stocks.
	601	Vegetative Barrier	Permanent strips of dense vegetation increase biomass carbon sequestration and soil carbon.
	650	Windbreak/Shelterbelt Renovation	Restoring trees and shrubs to reduce plant competition and optimize planting density increases carbon sequestration.

Qualitative Ranking N=Neutral	Practice Code	Practice Standard	Beneficial Attributes
 <p>GHG Benefits of this Practice Standard</p> <p>Practices with good greenhouse gas benefits</p>	311	Alley Cropping	Trees and/or shrubs are planted in combination with crops and forages. Increasing biomass density increases carbon sequestration and enhances soil carbon stocks.
	390	Riparian Herbaceous Cover	Perennial herbaceous riparian cover increases biomass carbon and soil carbon stocks.
	550	Range Planting	Establishing deep-rooted perennial and self-sustaining vegetation such as grasses, forbs, legumes, shrubs and trees improves biomass carbon sequestration and enhances soil carbon.
	603	Herbaceous Wind Barriers	Perennial herbaceous vegetation increases biomass carbon sequestration and soil carbon.

Qualitative Ranking N=Neutral	Practice Code	Practice Standard	Beneficial Attributes
 <p>GHG Benefits of this Practice Standard</p> <p>Practices with minimal greenhouse gas benefits</p>	346	Residue and Tillage Management, Ridge Till	Ridge planting promotes organic material accumulation that increases soil carbon. Reconstruction of ridges in the same row year after year will maximize organic matter buildup in the row. Shallow soil disturbance maintains soil carbon in the undisturbed horizons.
	632	Solid/Liquid Waste Separation Facility	Removal of solids from the liquid waste stream improves the efficiency of anaerobic digesters. CH ₄ generation is maximized within the digester by separating solids from the liquid feedstock. Proper management of the solid and liquid waste streams increases CH ₄ that is available for capture and combustion.

Qualitative Ranking N=Neutral	Practice Code	Practice Standard	Beneficial Attributes
 <p data-bbox="275 521 569 586">Practices with minimal greenhouse gas benefits</p>	342	Critical Area Planting	Establishing permanent vegetation on degraded sites enhances soil carbon and increases carbon sequestration by adding vegetative biomass.
	344	Residue Management, Seasonal	Managing residue enhances soil carbon when crop residues are allowed to decompose on a seasonal basis, increasing soil organic matter and reducing soil disturbance.
	345	Residue and Tillage Management, Mulch Till	Soil carbon increases when crop residues are allowed to decompose, increasing soil organic matter and minimizing soil disturbance.
	384	Forest Slash Treatment	Woody plant residues managed (chipped, scattered, etc.) on-site will increase soil carbon and soil organic matter. Forest slash that is removed can serve as a renewable fuel and feedstock.
	386	Field Border	Permanent vegetative field borders sequester carbon and increase soil carbon content.
	393	Filter Strip	Herbaceous vegetation in filter strips has slight carbon sequestration benefits and enhances soil carbon.
	412	Grassed Waterway	Perennial forbs and tall bunch grasses provide slight carbon sequestration benefits, minimize soil disturbance, and increase soil carbon.
	422	Hedgerow Planting	Woody plants and perennial bunch grasses increase biomass carbon stocks and enhance soil carbon.
	543	Land Reclamation Abandoned Mined Land	Establishment of permanent trees, shrubs, and grasses on abandoned and unmanaged lands increases biomass carbon stocks and enhances soil carbon.
	544	Land Reclamation Currently Mined Land	Establishment of permanent trees, shrubs, and grasses increases biomass carbon stocks and enhances soil carbon. Pre-mining baselines are important to establish prior to evaluating any carbon benefits.
	589C	Cross Wind Trap Strips	Perennial vegetative cover increases biomass carbon stocks and enhances soil carbon. Minimized soil disturbance also enhances soil carbon.
657	Wetland Restoration	Establishment of vegetation, particularly woodland and forest vegetation, increases biomass carbon stocks. Soil organic carbon is increased by incorporating compost as a physical soil amendment.	