



# Management Options for Improved Carbon Sequestration



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## Reduction of CO<sub>2</sub> emissions from Forest

**Reforestation** – shifting previously forested lands that have been converted to other uses to stands of growing trees through natural regeneration or planting.

**Afforestation** - planting of new forest on lands that have not historically contained forest.

Delaying timber harvest.



## Reduction of CO<sub>2</sub> emissions from Grasslands

Cultivation of new grasslands

Maintenance of existing grasslands

**Grazing management** – Increasing the quantity and quality of forages and reducing carbon losses through the soil degradation process.



## Reduction of CO<sub>2</sub> emissions from Agriculture

**No-till or low-till farming** - Conservation tillage practices can actually result in soil becoming a carbon sink.

Changing the overall land/crop management process

Modifying crop intensity

Retiring marginal land from production.

Retiring marginal lands also reduces nitrous oxide emissions by reducing fertilizer usage



## Reduction of CO<sub>2</sub> emissions from Fossil Fuels in Agriculture

Increased efficiency in:

Fossil fuel use in farm equipment

Water pumping

Grain drying

Production of fertilizers and pesticides



## Reduction of Non-CO<sub>2</sub> emissions in Agriculture

Optimize application of nitrogen-based fertilizer to avoid nitrous oxide emissions and leaching and run-off.

Maximize efficiency of livestock enteric digestion

Increase animal productivity

Improve forages to reduce the need for fertilizer on marginal lands

Implement manure management with anaerobic digesters.



## Sources

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