FLORIDA'S AGRICULTURAL CARBON ECONOMY AS CLIMATE ACTION:

The Potential Role of Farmers and Ranchers

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When carbon is stored in soil via plant photosynthesis, it prevents the return of carbon dioxide (CO_2), a major greenhouse gas (GHG), to the atmosphere. Certain management practices for farms and woodlands can store more carbon in soil to mitigate climate change.

Carbon Sequestration as Climate Action

Carbon sequestration is the process of capturing (or removing) CO_2 from the atmosphere and storing it so that it will not contribute to global warming.

Agricultural management practices that can promote carbon sequestration include:

- Applying conservation tillage (no-till or reduced till) practices
- Growing cover crops
- Implementing nutrient (fertilizer) management practices
- Mowing grass and lawn
- Preserving or increasing grazing lands
- Applying manure and compost
- Leaving crop residue
- Growing leguminous crops

Carbon Credits and Carbon Offsets

One **carbon credit** is equivalent to one metric ton of GHG removed from the atmosphere. Buying a carbon credit means that the buyer gains ownership of one metric ton of CO_2 removed from or prevented from entering the atmosphere through implementation of a management practice.

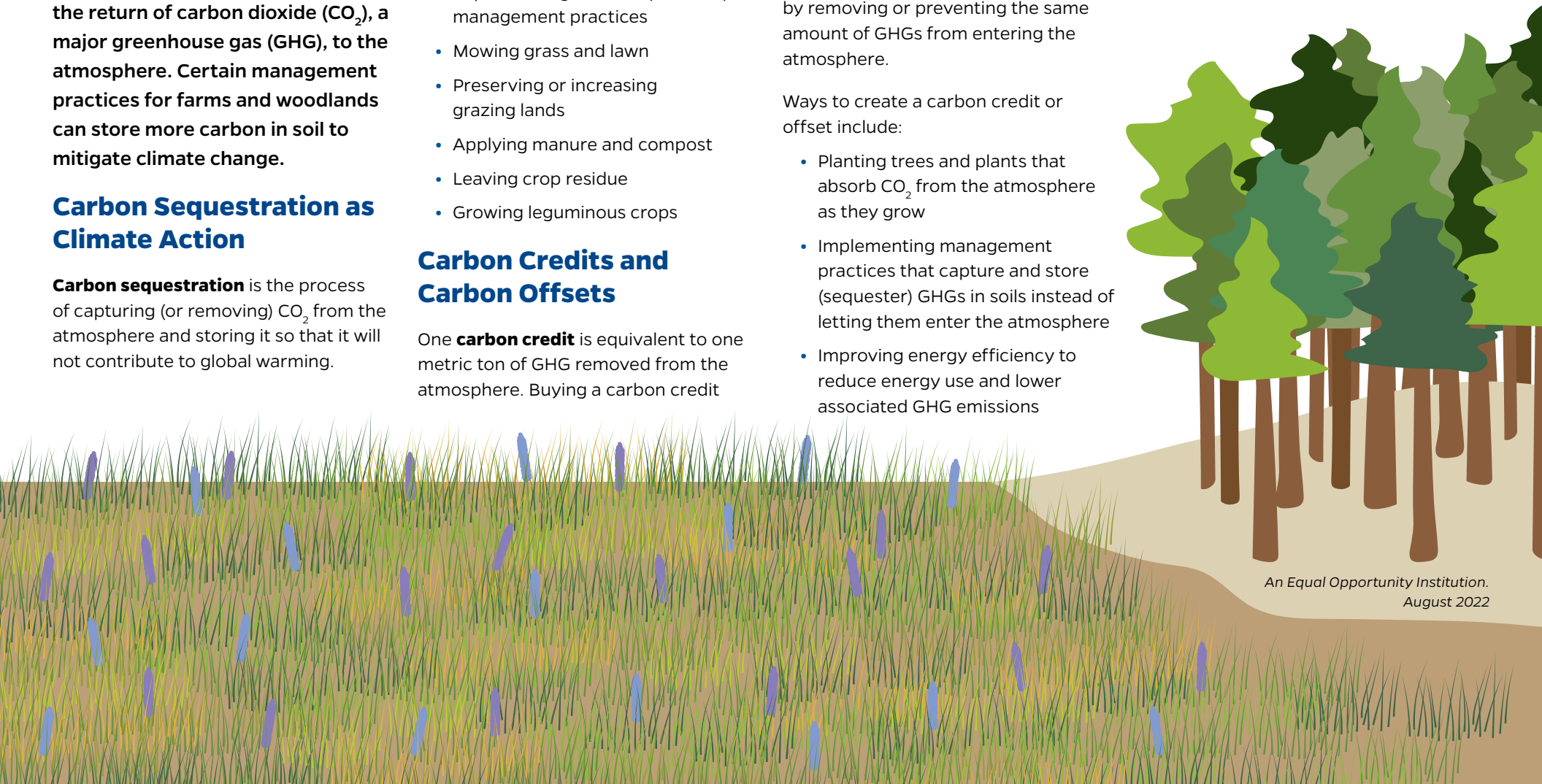
Carbon offset refers to an activity that compensates for the emission of GHGs by removing or preventing the same amount of GHGs from entering the atmosphere.

Ways to create a carbon credit or offset include:

- Planting trees and plants that absorb CO_2 from the atmosphere as they grow
- Implementing management practices that capture and store (sequester) GHGs in soils instead of letting them enter the atmosphere
- Improving energy efficiency to reduce energy use and lower associated GHG emissions

Farmers and ranchers can generate soil carbon credits by adopting additional conservation practices that result in quantifiable carbon sequestration.

To learn more, visit **https://edis.ifas.ufl.edu/ae573**.



August 2022