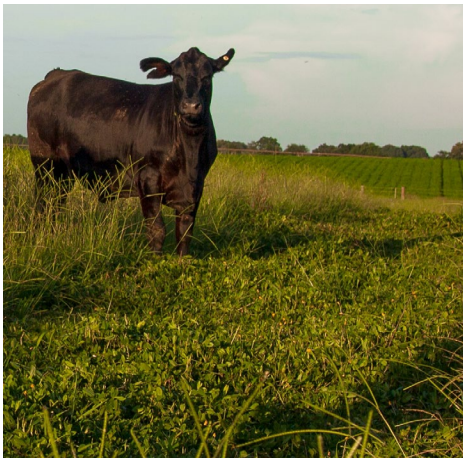




Ecosystem services provided by **GRASS-LEGUME PASTURES**



Ecosystem services are the benefits that society obtains from ecosystems

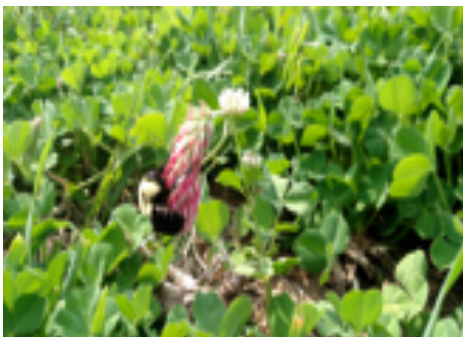


Strips of rhizoma peanut into a bahiagrass pasture, NFREC

Grazing systems offer a variety of ecosystem services such as forage, animal protein, clean water, control of soil erosion, nutrient cycling, habitat for wildlife, and pollination. Additionally, grazing systems use large quantities of natural resources generating an impact on the environment. Forage legumes are an alternative to reduce the use of N fertilizers, increase forage nutritive value, mitigate methane emissions, and increase habitat for pollinators.

Legumes fix N (Nitrogen) from the atmosphere and in a mixture of grasses increased the nutritive value of the forage and extended the grazing period. The extension of the grazing period could reduce feed costs in forage-livestock production in North Florida and decrease the need for N fertilizer. Cattle Average Daily Gain increased by 70% in pastures with rhizoma peanut compared with pastures without this legume.

Legumes provide positive effects on nutrient cycling and increase flower diversity. As a result, 17 native bee species have been reported in grass-legume pastures at NFREC. The greater digestibility of the rhizoma peanut decrease the magnitude of fecal nutrients excreted, reducing N losses by leaching.



Bumble bee in a pasture of clover and a mixture of grasses, NFREC



Bahiagrass pasture with clover and rhizoma peanut, NFREC