Agroforestry -- A Role on the Small Family Farm

H.E. 'Gene' Garrett

School of Natural Resources University of Missouri-Columbia

Small family farms, according to many in the scientific community, are destined to disappear. With advancements in biotechnology and the efficiency of corporate farms, it has become increasingly difficult for the small family farm operator to compete in the conventional markets of soybeans and corn. However, there is a crop for which there is great demand that, when combined with other cash crops, could provide unique opportunities for the small farm.

Projections made in recent years by the USDA, Forest Service, suggest a 38% increase in domestic wood needs by the year 2050. This comes at a time when harvest on federal and state lands is being reduced due to public pressure and, many are advocating dramatic increases in the use of biomass products and bioenergy to reduce our dependence on foreign oil. With projected increases in domestic wood demands and the availability of vast acreages of "underused" land on small farms, the adoption of agroforestry would go a long way towards satisfying a national need while providing crops and a reasonable income for the small farm operator.

Agroforestry, which capitalizes on the biophysical interactions created when trees and other crops (i.e., livestock, conventional row crops, horticultural crops etc.) are grown together, bridges the gap between production agriculture and natural resource management providing both production and environmental benefits. Among the benefits that can result from the interactions created are, increased crop production, alternative crops and diversified rural economies, improved water quality, filtering and biodegrading of excess nutrients and pesticides, reduced flooding, microclimate moderation, diversified habitats for wildlife and people, and the restoration of degraded ecosystems.

Success from agroforestry for the small farm operator is tied to maintaining a cash flow while waiting

for the trees to produce fruit (e.g., pecans, walnuts, chestnuts), speciality products (e.g., pine straw, floral green products, chemicals), or wood. This is achieved by carefully selecting crops that are grown with the trees for which known markets exist and diversifying so that several markets can be explored simultaneously. Short-rotation biomass production in alleyways between rows of a long-term tree crop is just one of many options for providing a cash flow while waiting for the long-term tree crop to come into production.

Agroforestry provides the opportunity to place millions of acres of idle or near-idle farm lands back into production while helping to meet a projected national need. Agroforestry can provide multiple long-term benefits to the small family farm operator and society in general. Its broadscale adoption would enable us to better meet the ecological, socioeconomic and cultural needs of land management, provide raw wood products to meet our nations needs and help preserve a rural way of life that has made America great.