Excerpts from “Silvopasture Economics: Three Case Studies”
Presented by Larry Godsey, PhD - Center for Agroforestry at the U. of Missouri – at the Northeast Silvopasture Conference, November 8th 2011- Watkins Glen, NY

The Impact of Shade on Weight Gain

• Beef cattle with shade had the following increases during late Spring and early Summer (University of Kentucky Animal Research Center):
  • 1.25 lbs/day for cows
  • 0.41 lbs/day for calves
  • 0.89 lbs/day for steers
• Cattle grazing on endophyte-infected pastures with shade gained 0.72 lbs/day over those without shade (University of Missouri).
• Cattle with shade had an ADG that was 20% more than cattle without shade (University of Arkansas).

The Impact of Shade on Milk Production

• Dairy cows provided with shade produced 10-19% more milk than non-shaded cows (University of Florida)
• When temperatures exceed 90°F, milk production can decrease by 20 to 30% (10-25 lbs. of milk per day) (Virginia Tech. University).
• Cows that were shaded produced up to 9 lbs. more milk per day over non-shaded cows.

The Impact of Shade on Reproduction and Fertility

• Cattle provided with shade had conception rates of 44.4%, as compared to conception rates of 25.3% for cattle without shade (University of Florida).
The Tomazi Farm (MO)

• 210 acres divided into 31 paddocks
• 6 - 9 acres each paddock
• 84 head cow/calf operation
• Rotational grazing system
• Reason for adopting silvopasture:
  • Improved weight gain in the heat of the summer,
  • Increased grass acreage without purchasing or renting (put non-productive land into production)

Economic Analysis:

• From June 15 – Aug 15, 2010
• ADG (avg. daily gain): 1.6 - 2.1 lbs/hd/day
• (Typical ADG: 0 – (− 1) lb/hd/day)
• ≈ 96 – 126 lbs/hd

• $130 - $170/hd
• $10,920 - $14,280 increase in profit
• The silvopasture edges are estimated to cost about $1200/acre ($3,500 total).

• B/C ratio: 3.12 – 4.08