



Kansas Biomass Site Assessment Tools (BioSAT)

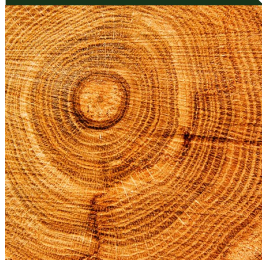
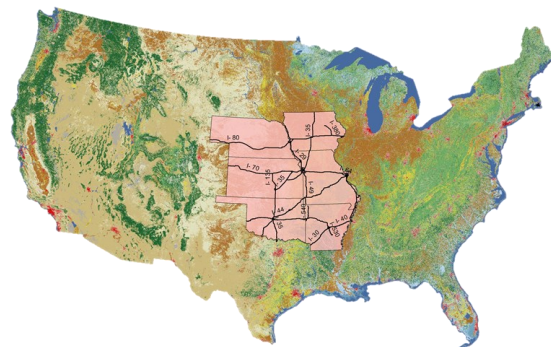
BioSAT helps rapidly screen and optimally site biomass collection or processing centers by zip code for Kansas. The resolution of the BioSAT Kansas model is by five-digit zip code tabulation area (ZCTA) for Kansas and 5 neighboring states: Arkansas, Iowa, Missouri, Nebraska, and Oklahoma.

BioSAT fuses layers of spatial and economic data together to create a relational database for geographic-based economic cost assessment for cellulosic biomass collection or processing demand centers.

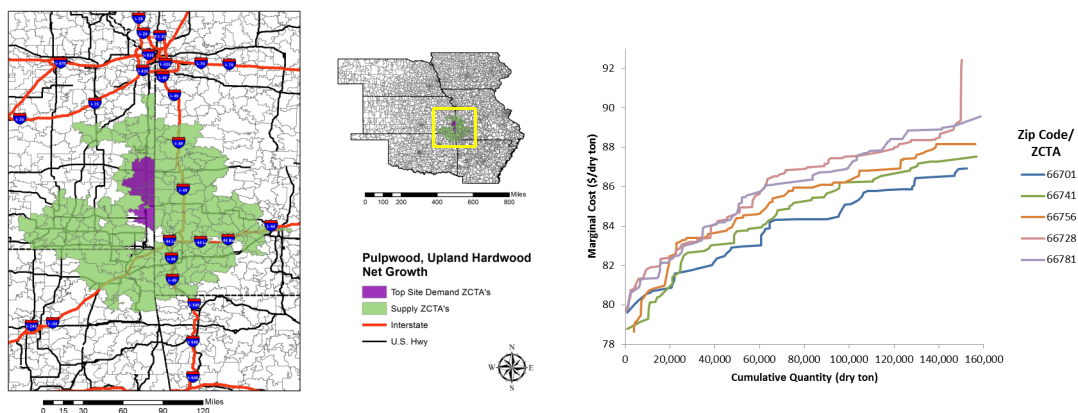
The integrated suite of site assessment tools provide a web-based economic decision-making framework for agricultural and forestry biomass that appeals to a broad client base by providing supply chain cost and logistics for cellulosic biomass markets and products.

The goal of this research project was to assess the geospatial economic availability of cellulosic feedstocks for demand sites in Kansas with supply zones coming from within the state and in some instances from the five-state surrounding region excluding federal lands, unsuitable ecoregions and highly populated areas. The study will improve the overall understanding of the economic costs for cellulosic feedstocks for potential manufacturers wishing to locate in the state of Kansas.

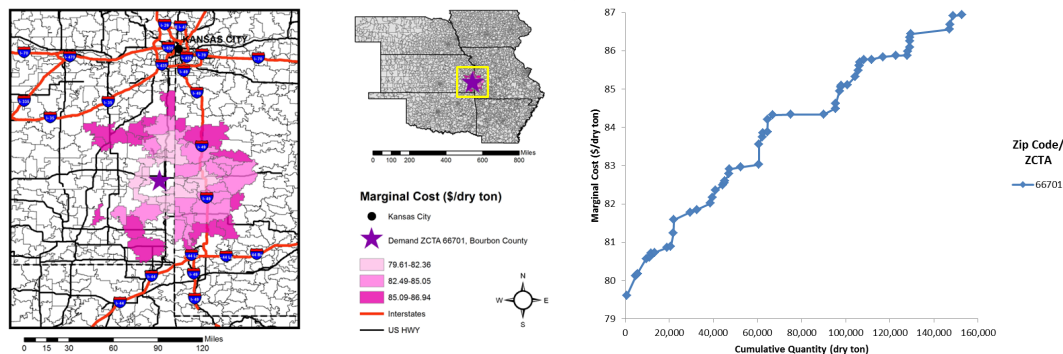
The study provides business decision-makers in the cellulosic feedstock-using industries with a geospatial economic tool that will allow them to assess the economic comparative advantages of cellulosic supply in the state, and at the sub-regional/interstate levels.



Low Cost Sourcing Areas and corresponding Marginal Cost Curves for Upland Hardwood Pulpwood Net Growth



Least Cost Sourcing Area with geo-referenced Supply Curve for Upland Hardwood Pulpwood Net Growth



KS BioSat focuses on:

- Supply chain cost and logistics from farm/forest gate to collection or conversion facility
- Map and display up-to-date baseline data for public and business leaders
- Assess the economic availability of woody and agricultural biomass
- Reduces screening time in locating favorable sites for full business case due diligence

Find Answers to Following Questions:

- Where is the biomass?
- What are the biomass supply options and costs?
- Have I chosen the right location?
- What are the biomass location opportunities and constraints?
- What are my delivered resource supply costs?

Feedstock Types in Kansas BioSAT

- Mill Residue
- Logging Residue
- Agricultural Residue
- Pulpwood Merchantable Trees
- Sawtimber Merchantable Trees

KANSAS FOREST SERVICE

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"Care of Natural Resources and Service To People Through Forestry"

Data Sources:

- USDA National Agricultural Statistics Service survey data
- U.S. Forest Service Forest Inventory and Analysis Database
- Timber Product Output Reports

