	Idaho National Laboratory Hess, et al. (2007); Hess, et al. (2009); Idaho National Laboratory (2006)	**Sandia National Laboratory** Sandia National Laboratories (2009); West, et al. (2009)	**National Biofuels Plan** Biomass Research and Development Board (2008)	**Oak Ridge National Laboratory** Reynolds (2002)	**Simulation and Optimization** De Mol et al. (1997)	**Forest fuel network design** Gronalt and Rauch (2007)	**Supply chain Optimization in the Forest Industry** Gunnarsson (2007)	**Jefferson County Biomass Facility Feasibility Study** McNeil Technologies, Inc. (2005)	**Integrated biomass supply analysis and logistics model (IBSAL)** Sokhansanj et al. (2006)	**CoEE Project 1**
Feedstock Type	Wheat Straw	Corn-based/agricultural and forest residues	Corn, crop residues, woody residues	Corn stover, forest residues/thinnings, agricultural residue, urban waste	Thinnings, prunings, waste wood, sewage sludge, waste paper	Forest Fuel	Forest fuel, pulp products	Urban wood waste, forest biomass	Corn stover	Woody biomass
Harvesting Procedures	Industrial harvesting (Crop harvesting, residue collection)	Not Identified	Industrial harvesting (Feller-buncher, skidder, crop harvesting, residue collection)	Not Identified	Not Identified	Industrial harvesting (Feller-buncher, skidder)	Not Identified	Industrial Harvesting (chainsaw, feller-buncher, harvester, skid steer, masticator)	Shredding, Baling, Stacking	Industrial harvesting (Feller-buncher, skidder)
Transportation Methods	Truck/Rail/Water	Truck/Rail	Truck/Rail/Water	Truck/Rail/Water	Truck/Rail/Water	Truck	Truck/Rail/Vessels/Barges	Truck	Truck (flatbed trailers)	Truck/Rail
Locations and Facilities	Harvesting and collection sites, storage facilities, preprocessing locations, ethanol plant	Source locations, storage sites, conversion plants, blending locations, distribution facilities	Harvesting and collection sites, storage facilities, preprocessing locations, ethanol plant	Source locations, terminals, ethanol plant	Source locations, collection sites, transshipment sites, pre-treatment sites, the energy plant	Harvesting site, regional terminals, industrial terminals, energy plant	Storage terminals, saw mill, pulp mill, paper mill, heating plant	Harvesting site, landing, energy plant	Harvesting site, satellite storage, biorefinery	Harvesting site, roadside landings, rail spurs, storage at the mill
Preprocessing Facilities	Reports suggest moving preprocessing of the biomass to early on in the supply chain	Not Identified	Various locations along the supply chain specific in each case	Not Identified	Optimization and simulation found preprocessing can best be done at the plant	A central terminal where all the chipping can occur and mobile chipping options were analyzed	Chipping occurs at the forest or at the mill prior to transport to the heating plant	Chipping occurs at the landing	Grinding occurs at the biorefinery	Chipping occurs at the mill
Biorefinery or Energy Operations	Numerous ethanol plants	Numerous ethanol plants	Numerous ethanol plants	Single plant destinations	One central location	Numerous energy plants	Numerous CHP facilities	Central facility, semi-mobile plant, existing facility, heating and cooling system	Biorefinery	One cellulosic ethanol plant
Output	Cellulosic Ethanol	Cellulosic Ethanol	Cellulosic Ethanol	Cellulosic Ethanol	Some type of fuel from Biomass	Fuel for heating and bioenergy plants	Saw wood, paper, forest fuels	Fuel for heating and power plants	Biorefinery	Cellulosic ethanol

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