Table of Feedstocks

The following table of feedstocks shows the most common feedstocks that are known to work, and what feedstocks are known to be problematic.

Suitability Key

Dark Green	Known to work with minimal operations and maintenance effort
Green	Known to work with increased operations and maintenance effort
Yellow	Maintenance intensive. Will work with increased operations and maintenance effort, may have increased slagging and other downtime impacts.
Red	Not tested or known to not work.
Dark Red	Known fundamental incompatibilities.

General Requirements For All Feedstocks

- Effective particle size: 1 cm–4 cm (0.5 inch –1.5 inch)
- Moisture content (% by dry weight): <30%
- Ash content <5%

Feedstock	Notes	Processing
Walnut Shells	Shell halves and large pieces work; finely crushed shells do not.	Sifting, drying.
Coconut Shells	See general requirements. Caution: Large pieces may cause auger binding or bridging.	Crushing, sifting, drying.
Hardwood Chips - Oak, Beech	See general requirements. Caution: Thick chips may cause auger binding.	Chipping, sifting, drying.
Softwood Chips - Douglas Fir, Pine	See general requirements.	Chipping, sifting, drying.
Corn Cobs	Must not contain husks. Caution: Increased chance of slagging.	Needs to be chopped to correct size.

Palm Kernel Shells	Caution: Risk of high temperatures	May work if blended with feedstocks that burn at lower temperatures
Wood Pellets	Larger pellets have better void spaces Caution: Pellets crumble due to humidity on shutdown.	
Saw Dust	Caution: Too fine, not physically compatible.	
Manure - Cow, Pig, Chicken, etc	Caution: High slag, low energy density.	
Coffee Grounds	Pellets of grounds prone to disintegration.	
Macadamia Nut Shells	Not enough testing to validate performance; excellent physical compatibility when sifted.	
Bamboo	Processing into chips difficult.	
Grassses - Switchgrass, Miscanthus, etc.	High silica and low bulk density.	
Paper Waste	Not physically compatible in paper form; same risks as pellets when pelletized. High ash content.	
Sugarcane Bagasse	Stringy material - not physically compatible; certain fuel jams.	
Corn stover	High ash content; silica content leads to slag.	
Oil Palm Pressings		
Rice Husk	High silica content leads to slagging.	
Coconut Husk	Not physically compatible	

Municipal Solid Waste / Trash	Slag risk; heavy metals; plastic content not suitable, especially PVC.	
Coal	Burns too hot; processes not designed to handle sulfur and other contaminants.	
Plastics	Melts and fouls auger/reactor; does not have good fixed carbon content. May contain or create toxic compounds	
Tires	Not chemically compatible.	