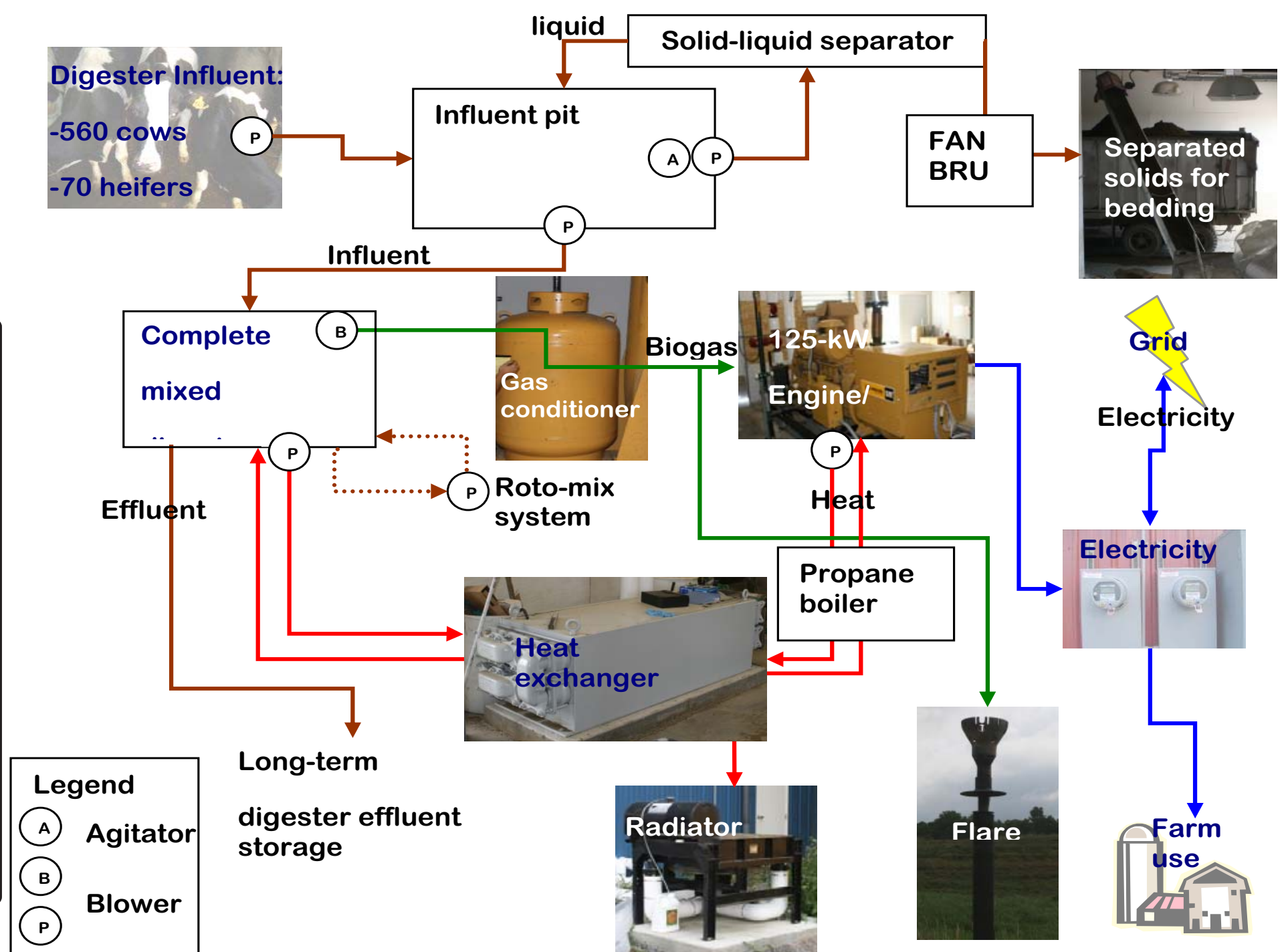


Process Description

Currently, the digester processes 14,000 gallons per day of barn effluent (composed of manure from 560 cows [lactating and dry] and manure from 70 bred heifers) as well as pre-digested solid-liquid separator (SLS) liquid effluent. The ratio is about 60% barn effluent and 40% liquid effluent.

Digester System



Roto Mix system - 30HP
Mixing pump



Bedding Recovery Unit.
The farm separates influent prior to digestions to make solids for bedding.



Engine room

Benefits and Considerations

Benefits

- Odor control
- Potential revenue from:
 - 1) Value-added products
 - 2) Reduction of purchased energy
 - 3) Sale of excess energy
 - 4) Efficient use of biogas production
 - 5) Carbon credit sales
- Conversion of nutrients from organic to inorganic form, allowing them to be readily utilized by plants as a natural fertilizer, if effluent is spread at an appropriate time
- Pathogen reduction

Considerations

- Comparatively high initial capital and/or high operating costs
- Long and tedious contracts with the local utility; may require special equipment for interconnection
- Dedicated management of the digestion system is required
- Careful attention to equipment maintenance and safety issues due to the characteristics of raw biogas