What is claimed is:

1. A method comprising:

saccharifying a biomass feedstock in a vessel while mixing with a jet mixer, the biomass feedstock having been dispersed in a liquid medium using a dispersing system that draws the feedstock and liquid medium out of the vessel and recirculates the feedstock and liquid medium back into the vessel,

wherein the initial solids concentration of the biomass feedstock dispersed in the liquid medium is at least 20% by weight, and the method further includes adding additional feedstock and saccharifying agent to the vessel during saccharification and dispersing the feedstock in the medium using the dispersing system.

2. The method of claim 1 wherein the dispersing system comprises a chamber and, within the chamber, a rotating member which draws the feedstock and liquid medium into the chamber axially and expels a dispersion of the feedstock in the medium from the chamber radially.

3. The method of claim 2 wherein the rotating member functions as an impeller and the action of the rotating member within the chamber is that of a centrifugal pump.

4. The method of claim 2 wherein the rotating member comprises mixing elements arranged coaxially with a rotor that is disposed in rotor-stator relationship with a side wall of the chamber.

5. The method of claim 1 wherein the dispersing system comprises a positive displacement pump.

6. The method of claim 5 wherein the positive displacement pump comprises a progressive cavity pump.

7. The method of claim 1 wherein the feedstock has a bulk density of less than about 0.75 g/cm^3.

8. The method of claim 1 wherein the liquid medium comprises water.

9. The method of claim 1 further comprising delivering a saccharifying agent to the vessel.

10. The method of claim 9 wherein the saccharifying agent comprises an enzyme.

11. The method of claim 1 wherein the dispersing system comprises a jet mixer.

12. The method of claim 1 further comprising delivering the feedstock and/or a saccharifying agent to the vessel from a source disposed outside the vessel.

13. The method of claim 12 wherein the source is positioned above the vessel.

14. The method of claim 12 wherein the source comprises a hopper and the hopper is in communication with a vibrating device.

15. The method of claim 1 further comprising delivering a stream of liquid medium onto the feedstock on the surface of the liquid medium to wet the feedstock.

16. The method of claim 15 wherein the feedstock is in a substantially dry condition prior to delivery to the vessel.

17. The method of claim 1 wherein the dispersing system comprises a plurality of dispersing devices.

18. The method of claim 1 wherein saccharifying comprises
adding the feedstock to the liquid medium in discrete increments; and
dispersing each discrete increment of feedstock into the liquid medium with the dispersing system before adding another increment of feedstock.

19. The method of claim 1 further comprising monitoring a glucose level of a mixture of the feedstock, the liquid medium and the saccharifying agent during saccharification.

20. The method of claim 1 wherein the vessel comprises a tank.

21. The method of claim 1 wherein the feedstock comprises a cellulosic or lignocellulosic material.

22. The method of claim 1 further comprising adding an emulsifier or surfactant to the mixture in the vessel.