WHAT IS CLAIMED IS:

1. A method of producing a sugar comprising

providing a paper with a ~~high~~ filler content of greater than 10 wt.% and an ash content of at least 8 wt.%,

~~and~~ combining ~~it~~ the paper with a saccharifying agent comprising an enzyme, in a tank, and

using jet mixing to mix the tank contents during saccharification.

2. The method of claim 1 wherein the filler content is at least 20wt.%.

~~3. The method of claim 1 or 2 wherein the paper has an ash content of at least 8 wt.%.~~

34. The method of any of the above claims wherein the paper further comprises a printing ink.

45. The method of any of the above claims wherein the paper is in the form of magazines.

56. The method of any of the above claims further comprising adding a food-based nutrient source to the mixture.

67. The method of any of the above claims further comprising adding a microorganism to the paper and producing a product or intermediate.

78. The method of claim 56 wherein the food-based nutrient source is selected from the group consisting of grains, vegetables, residues of grains, residues of vegetables, and mixtures thereof.

89. The method of claim 67 wherein the product comprises a fuel selected from the group consisting of hydrogen, alcohols, organic acids, hydrocarbons, and mixtures thereof.

9~~10~~. The method of claim 6~~7~~ wherein the microorganism comprises a yeast and/or a bacteria.

10~~11~~. The method of any of the above claims further comprising physically treating the paper.

11~~12~~. The method of any of the above claims further comprising processing the sugar.

12~~13~~. The method of claim 11~~12~~ wherein processing comprises separating xylose and/or glucose from the sugar.

13~~14~~. The method of any of the above claims wherein saccharification is conducted at a pH of about 3.8 to 4.2.

14~~15~~. The method of claim 10~~11~~ wherein the physical treatment comprises mechanically treating the paper to reduce the bulk density of the paper and/or increase the BET surface area of the paper.

15~~16~~. The method of claim 5~~6~~ wherein the food-based nutrient source is selected from the group consisting of wheat, oats, barley, soybeans, peas, legumes, potatoes, corn, rice bran, corn meal, wheat bran, and mixtures thereof.

~~17. A method of producing a sugar comprising providing a paper having a basis weight of at least 35 lb and combining it with a saccharifying agent.~~

~~18. The method of claim 17 wherein the paper has a basis weight between 35 lb and 330 lb.~~

~~19. The method of claim 17 or 18 wherein the filler content is greater than or equal to 10 wt.%.~~

20. The method of any one of claims 17-19 wherein the paper has an ash content of at least 8 wt.%.

21. The method of any one of claims 17-20 wherein the paper further comprises a printing ink.

22. The method of any one of claims 17-21 wherein the paper is in the form of magazines.

23. The method of any one of claims 17-22 further comprising adding a food-based nutrient source to the mixture.

24. The method of any one of claims 17-23 further comprising adding a microorganism to the paper and producing a product or intermediate.

25. The method of claim 23 wherein the food-based nutrient source is selected from the group consisting of grains, vegetables, residues of grains, residues of vegetables, and mixtures thereof.

26. The method of claim 24 wherein the product comprises a fuel selected from the group consisting of hydrogen, alcohols, organic acids, hydrocarbons, and mixtures thereof.

27. The method of claim 24 wherein the microorganism comprises a yeast and/or a bacteria.

28. The method of any one of claims 17-27 further comprising physically treating the paper.

29. The method of any one of claims 17-28 further comprising processing the sugar.

30. The method of claim 29 wherein processing comprises separating xylose and/or glucose from the sugar.

31. The method of any one of claims 17-30 wherein saccharification is conducted at a pH of about 3.8 to 4.2.

32. The method of claim 28 wherein the physical treatment comprises mechanically treating the paper to reduce the bulk density of the paper and/or increase the BET surface area of the paper.

33. The method of claim 23 wherein the food-based nutrient source is selected from the group consisting of wheat, oats, barley, soybeans, peas, legumes, potatoes, corn, rice bran, corn meal, wheat bran, and mixtures thereof.