

Abstract

The most serious problem of bioethanol is that it is made from corn which would otherwise be food .I tried to make bioethanol from scrap food. I confirmed experiental method of alcoholic fermentation with juice. I found the best fermentation time to be 1week. I decomposed onion peel, made of cellulose, to glucose with an autoclave and was also able to glucose by boiling onion peel in a pan. This result shows that we can decompose cellulose to glucose more efficiently with an autoclave.

Brix

Keywords

Bioethanol, Yeast, Alcoholic Fermentation, Onion, Orange, Peach, Grape, Brix value

2.

1

- ◆
- ◆
- ◆
- ◆
- ◆
- ◆
- ◆
- ◆
- ◆
- ◆

100%
100%
100%

Brix *

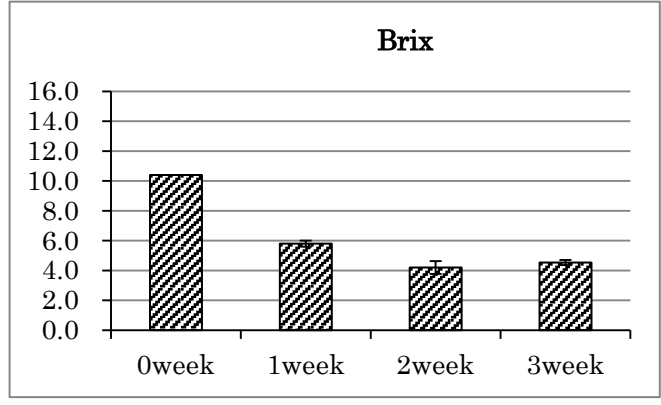
*Brix

10mL
0 3
5 5
3
0.3 g
30
Brix



1. Brix

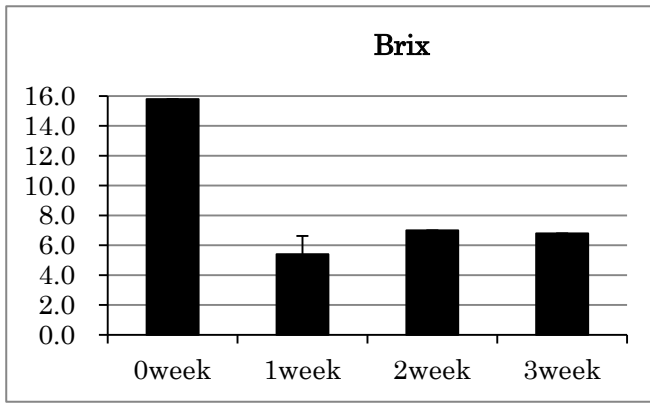
No.	1	2	3	
0week	10.4			10.4
1week	5.6	6	14.4	8.7
2week	4.6	4.4	3.6	4.2
3week	4.7	4.6	4.3	4.5



.1 Brix

2. Brix

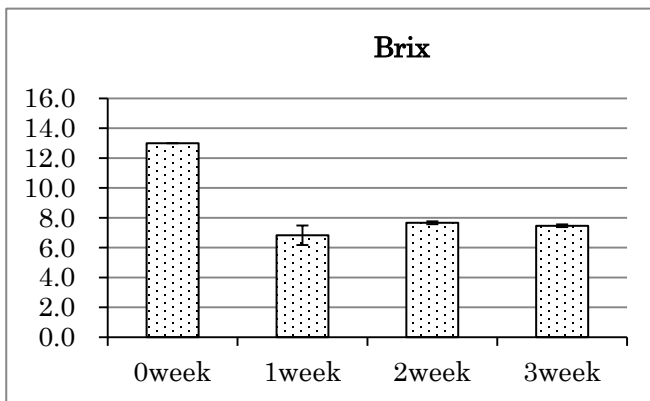
No.	1	2	3	
0week	15.8			15.8
1week	3.9	5.4	6.9	5.4
2week	7.0	7.0	7.0	7.0
3week	6.8	6.8	6.8	6.8



.2 Brix

3. Brix

No.	1	2	3	
0week	13.0	/	/	13.0
1week	7.6	6.0	6.9	6.8
2week	7.6	7.6	7.8	7.7
3week	7.4	7.4	7.6	7.5



.3 Brix

2 3

2

- ♦
- ♦
- ♦
- ♦
- ♦
- ♦
- ♦
- ♦
- ♦

pH

4g

pH 50mL

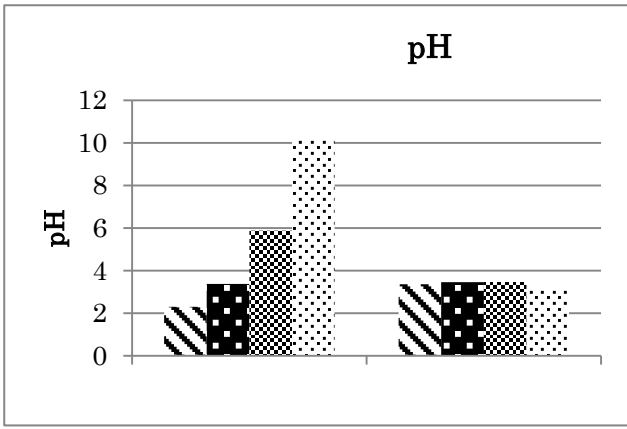
20

pH pH

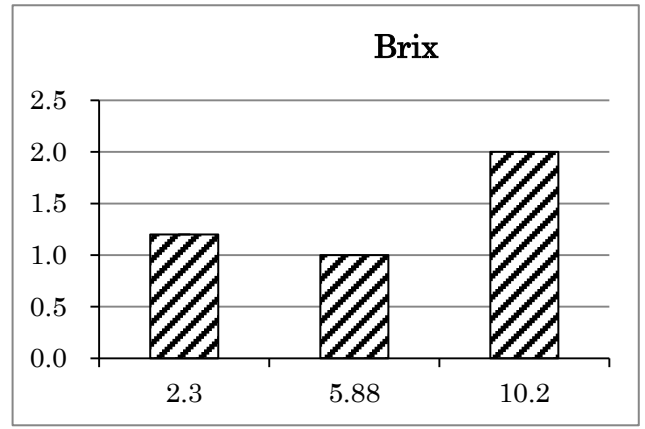


4. pH Brix

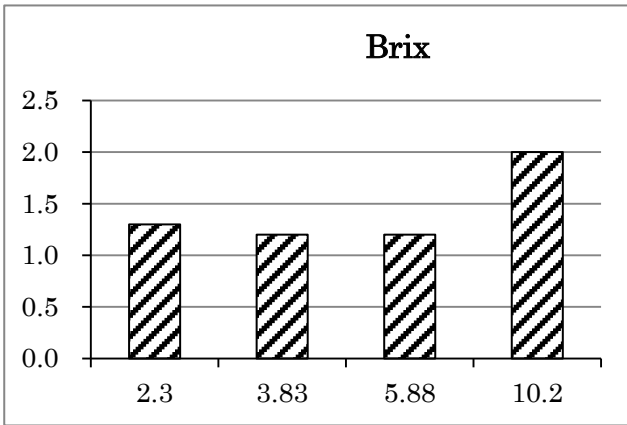
1	pH	pH	pH	pH
	2.30	3.83	5.88	10.20
	pH	3.41	3.56	3.46
	Brix	1.4	1.2	1.4
				2.0



.4 pH



.7 Brix



.5 Brix

pH

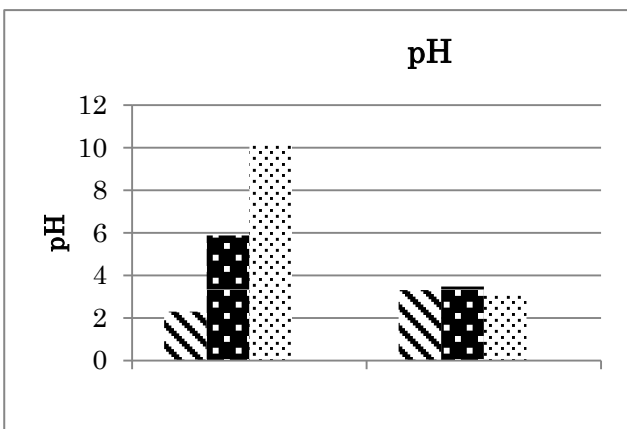
pH

3

5. pH Brix

2	pH 2.30	pH 5.88	pH 10.20
	pH 3.31	pH 3.48	pH 3.12
	1.2	1.0	2.0

2



.6 pH

pH

pH

◆
◆
◆
◆
◆
◆
◆
◆
◆
◆

- ♦
- ♦

4g

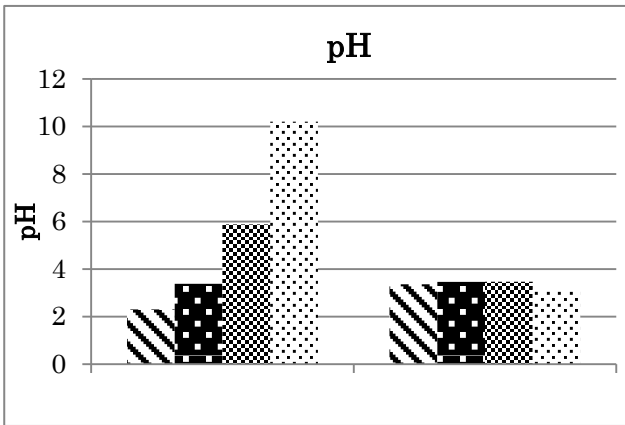
pH 50mL

20

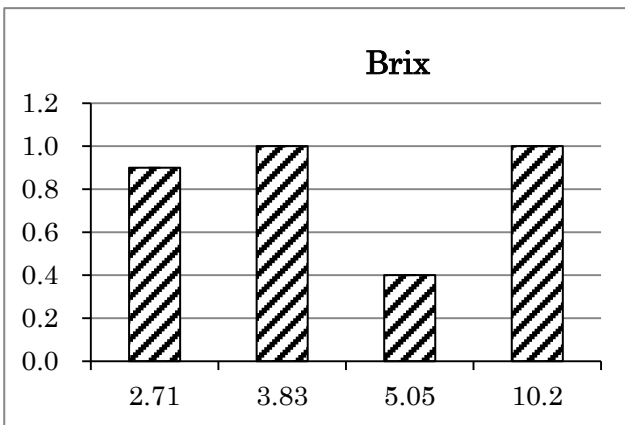
pH pH

6. pH Brix

1	pH	pH	pH	pH
	2.71	3.83	5.05	10.20
	pH	3.59	3.58	3.72
	Brix	0.9	1.0	0.4
			1.0	



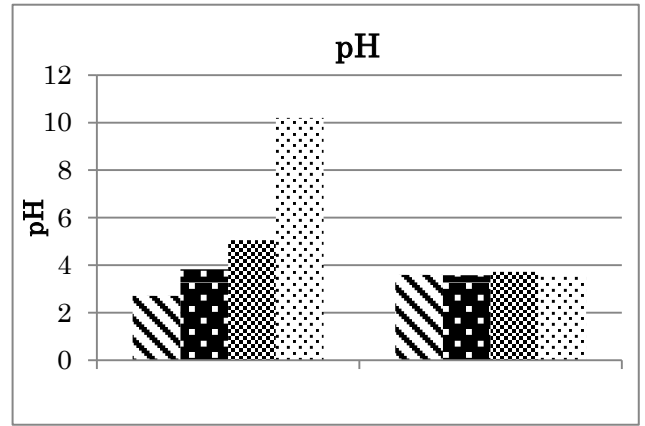
.8 pH



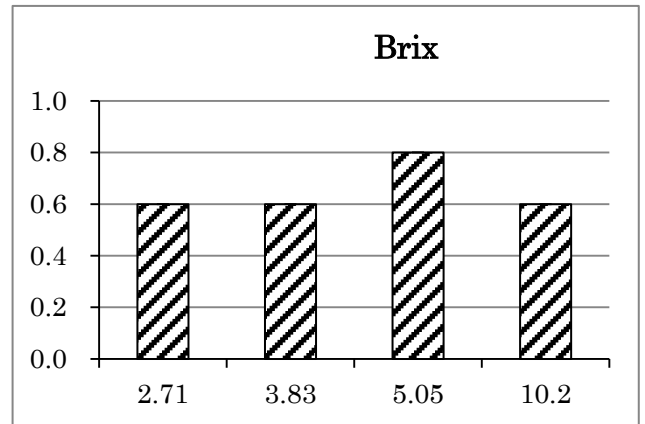
.9 Brix

7. pH Brix

2	pH	pH	pH	pH
	2.71	3.83	5.05	10.20
	pH	3.33	3.44	3.29
	Brix	0.6	0.6	0.8
			0.6	



.10 pH



.11 Brix

pH

pH

3.

pH

2 3

4.

5.

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