

Table 1. The root:flour conversion rates of the eight treatments.

	<b>sun</b>	<b>suw</b>	<b>huw</b>	<b>spw</b>	<b>hun</b>	<b>spn</b>	<b>hpw</b>	<b>hpn</b>
root:flour con rate (%)	26.73	26.24	24.84	24.45	24.28	24.28	23.59	23.20
<b><math>\alpha = .05^a</math></b>	A	A	B	BC	BC	BC	CD	D

<sup>a</sup> At  $\alpha = .05$ , A, B, C, D are significantly different from each other

Table 2. The quality and whiteness of the flour of each treatment, based on laboratory whiteness meter reading results and the participating women's perception.

	hpw	spn	hpn	spw	suw	hun	sun	huw	wheat <sup>a</sup>
Lab results <sup>b</sup>	74.1	70.21	74.97	71.34	64.65	69.21	64.9	66.81	<b>83.9</b>
$\alpha = .05^c$ (lab results)	B	C	B	C	E	CD	E	DE	A
Quality of flour <sup>d</sup>	4.9	5.6	5.2	5.4	5.9	5.7	6.4	6.2	

<sup>a</sup> Wheat flour was used as the reference of comparison of whiteness.

<sup>b</sup> On a scale from 100 to 0: 100 being the whitest and 0 the darkest, determined by Kett Whiteness Tester Model C-100.

<sup>c</sup> At  $\alpha = .05$ , A, B, C, D, E are significantly different from each other

<sup>d</sup> On a scale from 3 to 8, constructed from color, texture, and marketability: 3 being the highest quality and 8 being the lowest

Table 3. Processing time and cost of each treatment.

	hpn	spn	hpw	spw	hun	suw	huw	sun
<b>Proc time</b> (minutes)	73.2	72.2	69.4	67.3	47.3	46.9	44.6	44.3
<b>a = .05<sup>a</sup></b>	A	A	A	A	B	B	B	B
<b>Proc cost</b> (Rp/kg sp) <sup>b</sup>	91.5	91	86.8	84.1	59.1	58.6	55.8	55.4
<b>Proc cost</b> (Rp/kg fl) <sup>c</sup>	366	364	347	337	237	235	223	222

<sup>a</sup> At  $\alpha = .05$ , A and B are significantly different from each other

<sup>b</sup> Processing cost for  $\text{kg}^{-1}$  of fresh root:  $(\text{Rp}3,000 / (480\text{min}/\text{processing time})) / 5\text{kg}$

<sup>c</sup> Processing cost for  $\text{kg}^{-1}$  of flour (assuming 25% conversion rate):  $\text{Rp}/\text{kg sp} * 4$

Table 4. The processing time and age of each woman.

	<b>Pain</b>	<b>Sum</b>	<b>Sart</b>	<b>Mud</b>	<b>Ning</b>	<b>Rub</b>	<b>Hana</b>	<b>Inda</b>
Proc time (min)	65.2	63.4	62.5	61.9	55.6	53.9	52.5	50.3
$\alpha = .05^a$	A	AB	ABC	ABC	ABCD	BCD	CD	D
Age (years)	47	47	60	23	36	32	30	37

<sup>a</sup>At  $\alpha = .05$ , A, B, C, D are significantly different from each other

Table 5. Comparison of conversion rates, whiteness, and flour quality between the shredded and sliced treatments.

<b>Shredded Vs Sliced</b>					
<b>Shredded</b>	hpw	hpn	huw	hun	Avg
Conversion	23.59	23.2	24.84	24.28	<b>23.98</b>
Whiteness	74.1	74.97	66.81	69.21	<b>71.27</b>
Quality	4.9	5.2	6	5.7	<b>5.45</b>
<b>Sliced</b>	spw	spn	suw	sun	Avg
Conversion	24.45	24.28	26.24	26.73	<b>25.43</b>
Whiteness	71.34	70.21	64.65	64.9	<b>67.78</b>
Quality	5.4	5.6	5.9	6.4	<b>5.83</b>

Table 6. Comparison of conversion rates, whiteness, and flour quality between the peeled and non-peeled treatments.

<b>Peeled vs Unpeeled</b>					
<b>Peeled</b>	hpw	hpn	spw	spn	Avg
Conversion	23.59	23.2	24.45	24.28	<b>23.88</b>
Whiteness	74.1	74.97	71.34	70.21	<b>72.66</b>
Quality	4.9	5.2	5.4	5.6	<b>5.28</b>
<b>Unpeeled</b>	huw	hun	suw	sun	Avg
Conversion	24.84	24.28	26.24	26.73	<b>25.52</b>
Whiteness	66.81	69.21	64.65	64.9	<b>66.36</b>
Quality	6	5.7	5.9	6.4	<b>6.00</b>

Table 7. Comparison of conversion rates, whiteness, and flour quality between the water and sulfite solution soaking treatments.

<b>Water vs Bisulfite</b>					
<b>Water</b>	hpw	huw	spw	suw	Avg
Whiteness	74.1	66.81	71.34	64.65	<b>69.22</b>
Quality	4.9	6	5.4	5.9	<b>5.55</b>
<b>Sulfite</b>	hpn	hun	spn	sun	Avg
Whiteness	74.97	69.21	70.21	64.9	<b>69.8</b>
Quality	5.2	5.7	5.6	6.4	<b>5.73</b>

Table 8. Best clones selected for high dry matter content and yield.

Clone	Yield t/ha			Dry matter content %			Skin color	Flesh color
	Malang	Bogor	Lembang	Malang	Bogor	Lembang		
AB94001.8	<b>30.4</b>	14.1	25.9	<b>37.8</b>	34.8	37.1	Cream	White
AB94065.4	<b>27.5</b>	15.6	24.3	<b>37.2</b>	37.3	33.8	Cream	White
AB94078.1	<b>26.2</b>	18.5	18.4	<b>39.4</b>	40.4	36.7	Red	White
AB94079.1	<b>28.6</b>	14.8	17.9	<b>38.7</b>	38.8	36.0	Cream	White

Source: Mok, 1996 annual report, CIP-Bogor.

Table 9. Costs and Profits of producing flour from one hectare of sweetpotato: three varieties.

Yield (T/ha.)	Conversion rate (%) <sup>a</sup>	total flour per ha. (kg)	Processing cost kg <sup>-1</sup> (Rp)	Process cost per ha. (Rp)	Flour sales per ha. (Rp) <sup>b</sup>	Net profit per ha. (Rp)
26	30	7,800	289	2,254,200	5,070,000	2,815,800
28	29	8,120	299	2,427,880	5,278,000	2,850,120
30	28	8,400	310	2,604,000	5,460,000	2,856,000

<sup>a</sup> Based on Table 8, estimating 37.8 DM content will yield 28%, 38.7 DM content will yield 29%, and 39.4 DM content will yield 30% of conversion rate.

<sup>b</sup> Estimated sweetpotato flour price of Rp650 kg<sup>-1</sup>.

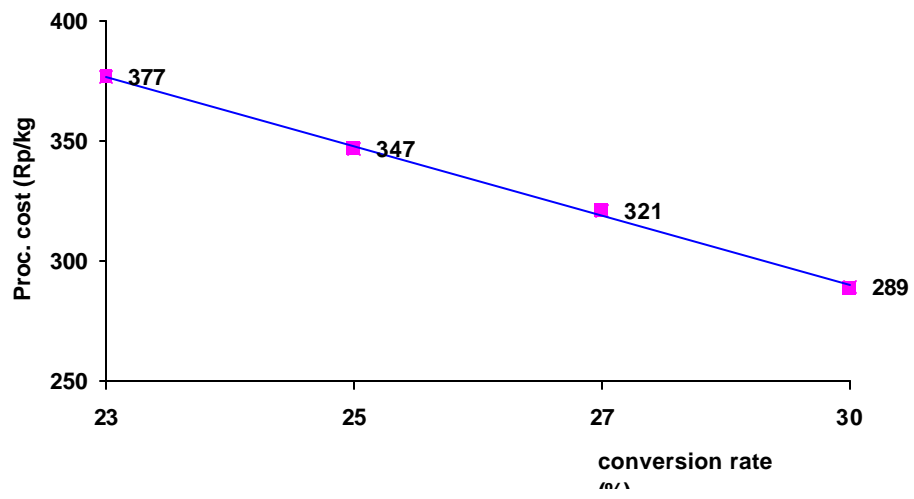


Figure 1. Processing costs of producing one kilo of sweetpotato flour with peeling/grating method at various conversion rates.