

Optimization Use of Coconut Milk Powder and Desiccated Coconut Powder in *Boranan* Instant Sauce Formulation, a Traditional Food from Lamongan, Indonesia

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INTRODUCTION

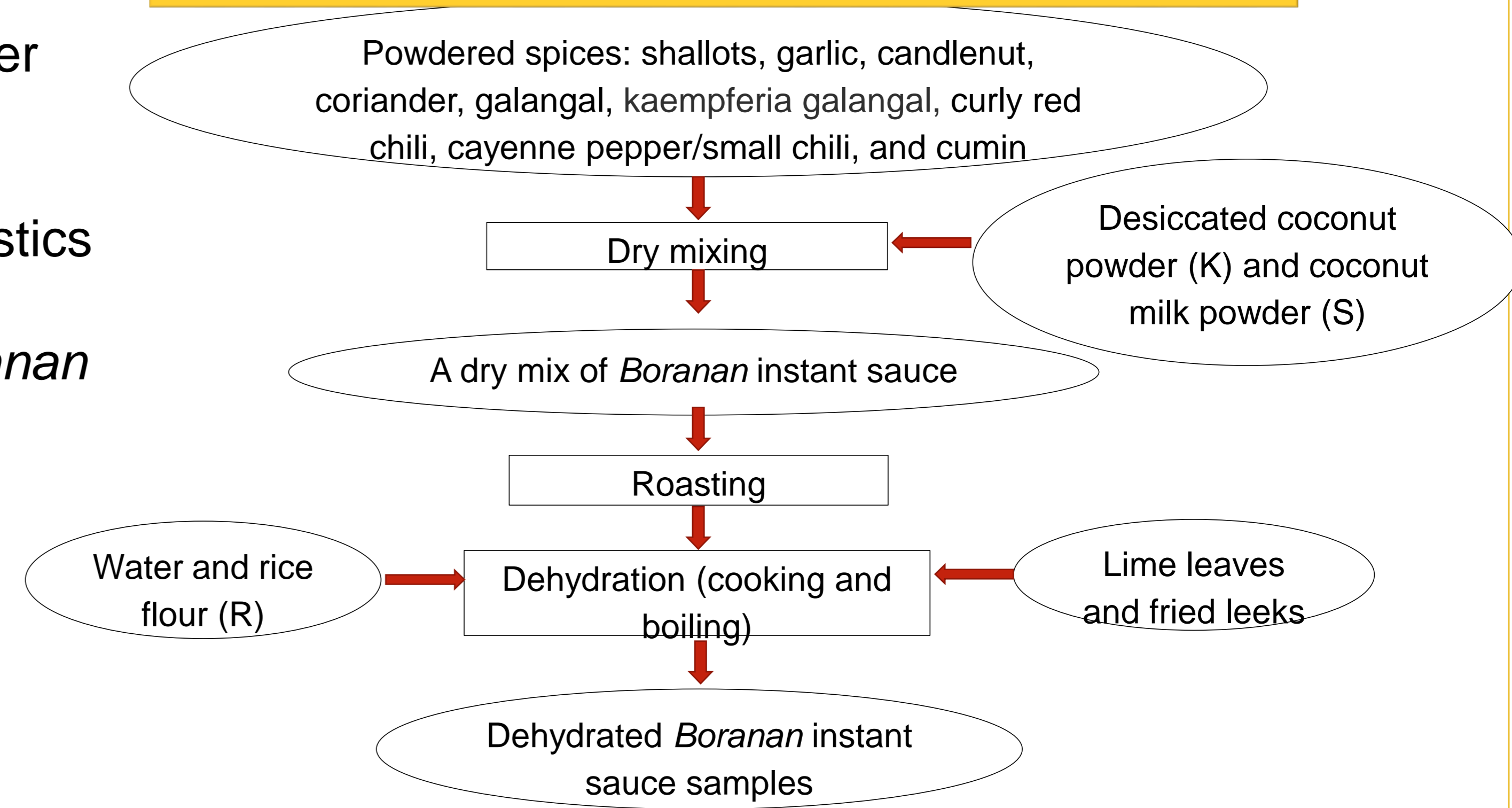
Lamongan is the northern coastal region of East Java that has special food called *Sego Boranan* [1]. It is rice served with a variety of dishes and special chili sauce. Boranan sauce is known to have complex ingredients, with the main flavor is spicy, and process production. Even so, many people just come to Lamongan for having dinner with *Sego Boranan*. Otherwise, high mobility and change of lifestyle drive people to live practical and instant, as well as for food preparation. It was stated that many traditional foods have potential to be developed as local food souvenir [2]. The goal of this research is making a formulation of *Boranan* sauce from dried ingredients.

MATERIALS AND METHODS

- 1) The concentration of desiccated coconut powder (K), coconut milk powder (S), and rice flour (R) were optimized.
- 2) There were 9 samples of *Boranan* sauce.
- 3) Physicochemical (pH, water content, fat content) and sensory characteristics analysis (taste, aroma, color, texture, and overall).
- 4) The selected formula is analyzed by a discriminatory test with fresh *Boranan* chili sauce.



Flowchart of Boranan instant sauce production

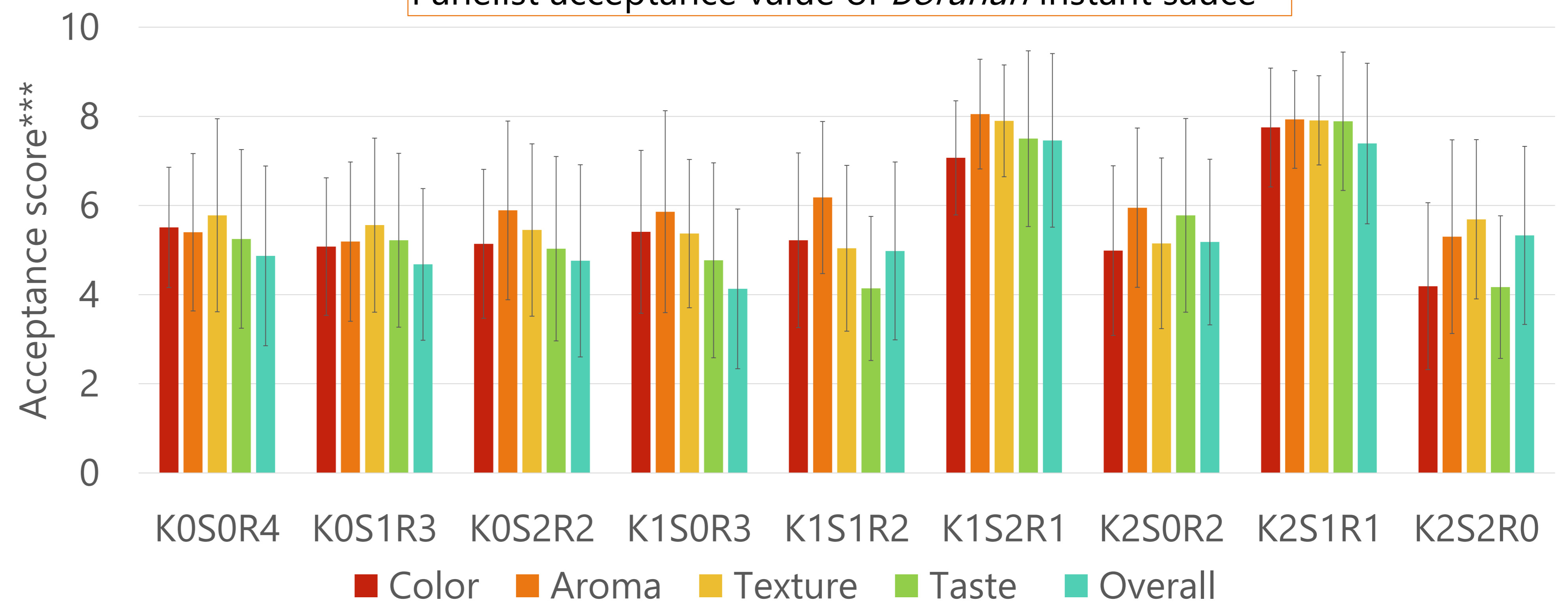


RESULT AND DISCUSSION

Physicochemical Characteristics*

Sample**	Moisture content (%)	Fat content (%)	pH
K0S0R4	79.35 ^a	4.07 ^a	6.16 ^a
K0S1R3	82.06 ^{abc}	4.49 ^{ab}	6.17 ^a
K0S2R2	79.45 ^a	4.88 ^{abc}	6.21 ^a
K1S0R3	83.01 ^{bc}	5.59 ^{abc}	6.15 ^a
K1S1R2	81.61 ^{abc}	5.98 ^{abcd}	6.17 ^a
K1S2R1	80.29 ^{ab}	5.34 ^{abc}	6.19 ^a
K2S0R2	83.69 ^c	6.98 ^{cd}	6.14 ^a
K2S1R1	84.08 ^c	6.59 ^{bcd}	6.17 ^a
K2S2R0	84.67 ^c	7.90 ^d	6.20 ^a

Panelist acceptance value of *Boranan* instant sauce**



Differences between fresh *Boranan* sauce (control) and dehydrated *Boranan* instant sauce

Sample*	Differences****	Significance
K1S2R1	1.36	p < 0.001
K2S1R1	1.27	p < 0.001

The drying process in the *Boranan* spices can affect the flavor produced. According to Buckle [3], the drying process can cause volatile flavors to disappear. Thus, the difference between sample and control is very significant.

Selected *Boranan* Sample Formulation



K1S2R1 Sample

K2S1R1 Sample

*Analysis was done in dehydrated *Boranan* instant sauce samples. Data are presented as mean±SD (n=2). Value with a different superscript letter within the column are statistically different (p<0.05, Duncan test).

** K0: 0% desiccated coconut powder, K1: 2.25% desiccated coconut powder, K2: 4.5% desiccated coconut powder, S0: 0% coconut milk powder, S1: 2.25% coconut milk powder, S2: 4.5% coconut milk powder, R0: 0% rice flour, R1: 2.25% rice flour, R2: 4.49% rice flour, R3: 6.74% rice flour, R4: 8.99% rice flour

*** 0 = really, really don't like it. 1 = very dislike. 2 = don't like it. 3 = quite dislike. 4 = a little dislike. 5 = between dislike and like. 5.5 = like enough. 6 = a little like. 7 = like. 8 = really like it. 10 = really, really likes

**** 0 = no difference/same. 1 = slightly different .2 = a little different 3 = moderate 4 = quite different 5 = different 6 = very different

CONCLUSION

- The different concentrations of desiccated coconut powder (K), coconut milk powder (S), and rice flour (R) did not give a significant difference in pH. But the other parameters (water content, fat content, aroma, color, texture, and taste) showed significant differences.
- Both K1S2R1 & K2S1R1 samples have a higher preference value than the other seven samples in 7.91 values from 10 scale but showed significantly different from fresh-made *Boranan* sauce.

REFERENCES

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3. Buckle K. A.. *Ilmu Pangan*. Jakarta: UI-Press. 2009.