

## RINGKASAN

*Sourdough hybrid* adalah metode fermentasi roti yang mengombinasikan starter *sourdough* alami dengan ragi komersial (*Saccharomyces cerevisiae*). Seiring berkembangnya pemanfaatan bahan pangan lokal, tepung *MOCAF* (*Modified Cassava Flour*) mulai digunakan sebagai bahan substitusi tepung terigu dalam pembuatan roti. Namun, karena *MOCAF* tidak mengandung gluten seperti tepung terigu, penggunaannya diduga dapat memengaruhi sifat fisikokimia adonan, terutama selama proses fermentasi. Penelitian ini bertujuan untuk mengetahui pengaruh lama fermentasi (*proofing*) dan substitusi tepung *MOCAF* terhadap karakteristik fisikokimia adonan roti *Sourdough* serta menentukan kombinasi perlakuan terbaik. Penelitian menggunakan Rancangan Acak Lengkap (RAL) faktorial dengan dua faktor, yaitu lama fermentasi 8 jam, 12 jam, dan 16 jam serta substitusi tepung *MOCAF* 25%, 30%, dan 35%. Parameter yang diamati meliputi pH dan daya kembang adonan. Hasil penelitian menunjukkan bahwa nilai pH tertinggi diperoleh pada perlakuan fermentasi 8 jam dengan substitusi *MOCAF* 30% dan fermentasi 12 jam dengan substitusi *MOCAF* 25%, masing-masing sebesar 6,37, sedangkan daya kembang tertinggi diperoleh pada perlakuan fermentasi 12 jam dengan substitusi *MOCAF* 25% sebesar 109,53%. Berdasarkan keseluruhan hasil penelitian, perlakuan fermentasi 12 jam dengan substitusi tepung *MOCAF* 25% dapat dipandang sebagai perlakuan terbaik karena menghasilkan salah satu nilai pH tertinggi dan daya kembang adonan tertinggi. Hasil analisis ragam menunjukkan bahwa perlakuan tidak berpengaruh nyata terhadap daya kembang adonan yaitu dengan nilai ( $p > 0,05$ ).

**Kata kunci:** *Sourdough*, lama fermentasi, *MOCAF*, pH, daya kembang

## SUMMARY

Hybrid sourdough is a bread fermentation method that combines a natural sourdough starter with commercial yeast (*Saccharomyces cerevisiae*). Along with the growing use of local food resources, MOCAF (Modified Cassava Flour) has begun to be used as a substitute for wheat flour in bread making. However, because MOCAF does not contain gluten like wheat flour, its use is expected to affect the physicochemical properties of dough, particularly during the fermentation process. This study aimed to determine the effect of proofing time and MOCAF flour substitution on the physicochemical characteristics of Sourdough bread dough and to identify the best treatment combination. The study used a factorial Completely Randomized Design (CRD) with two factors, namely proofing times of 8, 12, and 16 h and MOCAF flour substitution levels of 25%, 30%, and 35%. The observed parameters were pH and dough expansion. The results showed that the highest pH value was obtained in the treatments of 8 h of proofing with 30% MOCAF substitution and 12 h of proofing with 25% MOCAF substitution, both at 6.37, while the highest dough expansion was obtained in the treatment of 12 h of proofing with 25% MOCAF substitution, reaching 109.53%. Based on the overall results, the treatment of 12 h of proofing with 25% MOCAF flour substitution can be considered the best treatment because it produce one of the highest pH values and the highest dough expansion. Analysis of variance also showed that the treatments had no significant effect on dough expansion ( $p>0.05$ ).

**Keywords:** Sourdough, Proofing time, MOCAF, pH, dough expansion