

**PENGARUH pH DAN SUHU TERHADAP AKTIVITAS DAN  
STABILITAS AMILASE KECAMBAH JAGUNG MANIS (*Zea mays L.*  
*saccharata*) VARIETAS HIBRIDA**

**INTISARI**

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Tujuan dari penelitian ini untuk mengetahui pengaruh waktu perkecambahan terhadap produksi amilase kecambah jagung manis varietas hibrida serta pengaruh pH dan suhu terhadap aktivitas dan stabilitas amilase kecambah jagung manis varietas hibrida. Hasil penelitian menunjukkan bahwa produksi amilase kecambah jagung manis varietas hibrida tertinggi pada hari ketiga perkecambahan. Aktivitas amilase rendah pada pH di bawah 5, aktivitas tertinggi berada pada pH 6, dan menurun setelah pH 6. Aktivitas amilase tertinggi pada suhu 50°C, aktivitasnya rendah dibawah suhu 45°C dan diatas suhu 50°C mengalami penurunan aktivitas. Amilase kecambah jagung manis stabil pada suhu 50°C hingga 60 menit inkubasi dengan aktivitas diatas 90%, stabil pada pH 5,5 dan 6,0 hingga 40 menit inkubasi dengan aktivitas diatas 90% dan di pH 6,5 sebesar 79,03%.

Kata kunci: amilase, jagung manis, pH, suhu, aktivitas, stabilitas

**EFFECT OF pH AND TEMPERATURE ON THE ACTIVITY AND STABILITY OF AMYLASE FROM SWEET CORN (*Zea mays L. saccharata*) HYBRID VARIETY MALT**

**ABSTRACT**

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The objectives of this study were to investigate the effect of germination time on the production of amylase from sweet corn hybrid variety malt and the effect of pH and temperature on the activity and stability of amylase from sweet corn hybrid variety malt. The results showed the highest production of amylase was at third day of germination. Activity of amylase was low at under pH 5, the highest activity was at pH 6, and it decreased after pH 6. The highest activity of amylase was at 50°C, the activity was low at under 45°C and it decreased after 50°C. Amylase from sweet corn malt was stable at 50°C until 60 minutes incubation with activity was above 90%, was stable at pH 5.5 and 6.0 until 40 minutes incubation with activity were above 90%, and at pH 6.5 was 79.03%.

Keywords: amylase, sweet corn, pH, temperature, activity, stability