

BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

Berdasarkan hasil penelitian yang dilakukan, dapat disimpulkan bahwa:

1. Kadar protein tepung tahu tepung tahu CaCl_2 9,61% lebih besar daripada tepung kedelai.
2. Tepung tahu CaCl_2 memiliki kadar kalsium 0,0596% lebih besar dari tepung tahu Glukono-Delta-Lakton dan 0,0503% lebih besar dari tepung kedelai.
3. Semakin tinggi temperatur udara kering meningkatkan koefisien difusi massa air (kg) karena meningkatnya difusivitas udara dan terjadinya *marangoni effect*, serta meningkatkan koefisien difusi panas (hc) karena gradien temperatur yang semakin besar mengakibatkan *driving force* perpindahan panas meningkat.
4. Semakin tebal irisan tahu meningkatkan koefisien difusi massa air (kg) karena pada tebal irisan yang lebih tipis, dapat terjadi *case hardening* yang menjadi tahanan dalam difusi massa. Namun tebal irisan tahu tidak berpengaruh terhadap koefisien difusi panas (hc).
5. Tidak terjadi interaksi antara temperatur udara pengering dan tebal irisan tahu terhadap nilai koefisien difusi massa air (kg) maupun koefisien difusi panas (hc).
6. Kondisi pengeringan terbaik didapatkan pada temperature udara pengering 70°C dan tebal irisan tahu 4 mm dengan nilai $kg \frac{1,2273}{m^2 jam}$ dan nilai $hc \frac{1588,65}{m^2 jam K}$.

5.2 Saran

Berdasarkan hasil penelitian yang diperoleh, terdapat beberapa saran yang dapat diberikan untuk penelitian selanjutnya yaitu:

1. Proses pengeringan tahu sebaiknya dilakukan secepatnya setelah pembuatan tahu, karena ketahanan tahu hanya berkisar sekitar 12 jam.
2. Sampling kadar air saat proses pengeringan perlu diperbanyak pada rentang waktu 0-120 menit agar kurva tahap pengeringan konstan dapat lebih tergambar.
3. Tebal irisan tahu sebaiknya tidak terlalu tipis karena tahu menjadi mudah hancur.
4. Perlu diperhatikan agar temperatur pengeringan tidak terlalu tinggi dan tebal irisan tahu tidak terlalu tipis karena dapat menyebabkan terjadinya *case hardening* yang dapat menghambat terjadinya difusi massa maupun panas.

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