

## BAB V

### KESIMPULAN DAN SARAN

#### V.1. Kesimpulan

Dari hasil percobaan memucatkan warna *crude palm oil* menggunakan daun intaran, telah didapatkan hasil optimum, yaitu total warna yang dapat dikurangi sebesar 76%, kadar FFA menurun hingga 5,35%, dan PV menurun hingga 0,31 meq H<sub>2</sub>O<sub>2</sub>/kg minyak. Dari hasil-hasil ini dapat disimpulkan bahwa:

1. Daun intaran terbukti dapat memucatkan warna *crude palm oil* dan dapat mengurangi kadar PV, serta FFA dalam minyak. Akan tetapi, penurunan FFA tidak signifikan.
2. Daun intaran dengan delignifikasi dan *treatment* HCl dapat menyerap  $\beta$ -karoten dan PV lebih banyak jika dibandingkan dengan daun intaran tanpa delignifikasi dan *treatment*.
3. Untuk *treatment* HCl, semakin besar *impregnation ratio*, maka semakin banyak juga  $\beta$ -karoten dan PV yang dapat terserap.
4. Mekanisme penyerapan  $\beta$ -karoten dan senyawa hasil oksidasi diawali dengan pembentukan ikatan koordinasi pada *Lewis sites* yang menyebabkan pembentukan ion *carbonium* yang kemudian menyerap  $\beta$ -karoten dan senyawa hasil oksidasi dalam CPO.

#### V.2. Saran

Saran untuk pengembangan penelitian lebih lanjut adalah modifikasi sifat kimia permukaan pada daun intaran dapat dilakukan dengan metode lain, misalnya dengan melakukan *heat treatment* menggunakan microwave agar dapat memperbesar kapasitas adsorpsi dari bubuk daun intaran.

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