

BAB V



KESIMPULAN DAN SARAN

5.1 Kesimpulan

1. Semakin besar konsentrasi inokulum awal, maka semakin besar nilai OD dan jumlah sel pada medium Walne maupun BG-11.
2. Pengkulturan menggunakan medium BG-11 memberikan fase log yang lebih panjang dibandingkan pengkulturan menggunakan medium Walne.
3. Pertumbuhan sel *H. pluvialis* lebih baik pada media tumbuh BG-11 dengan konsentrasi inokulum awal dan jumlah nutrisi sebesar 37,07 % dan 1,5 mL yang menghasilkan kepadatan sel lebih tinggi ($23,75 \times 10^6$ sel/mL) pada hari ke-3 dibandingkan variasi lainnya.
4. Untuk pertumbuhan menggunakan media Walne, diperoleh pertumbuhan terbaik dengan konsentrasi inokulum awal dan jumlah nutrisi sebesar 35 % dan 2 mL yang menghasilkan kepadatan sel lebih tinggi ($17,5 \times 10^6$ sel/mL) pada hari ke-3.
5. Analisis kondisi optimum pertumbuhan *Haematococcus pluvialis* menggunakan metode CCD tidak memberikan hasil yang baik yang disebabkan oleh pemilihan variasi konsentrasi inokulum dan jumlah nutrisi belum berada di daerah optimum.

5.2 Saran

Untuk mencari kondisi optimal pertumbuhan *Haematococcus pluvialis* dengan menggunakan metode CCD, perlu dicari variasi percobaan yang berada pada daerah optimum dengan rentang yang cukup besar. Lama waktu pengkulturan juga dapat diperpanjang sehingga dapat dilihat pola pertumbuhan yang lebih baik.



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