

DAFTAR ISI

| | Halaman |
|---|----------------|
| DAFTAR TABEL | vi |
| DAFTAR GAMBAR | viii |
| I. PENDAHULUAN | 1 |
| 1.1 Latar Belakang | 1 |
| 1.2 Rumusan Masalah | 4 |
| 1.3 Tujuan Penelitian | 5 |
| 1.4 Manfaat Penelitian | 5 |
| 1.5 Batasan Masalah | 5 |
| II. TINJAUAN PUSTAKA | 6 |
| 2.1 Sistem Hidroponik | 6 |
| 2.1.1 Hidroponik <i>Ebb and Flow</i> | 7 |
| 2.2 Tanaman Baby Kailan (<i>Brassica oleraceae</i>) | 8 |
| 2.2.1 Morfologi Tanaman Baby Kailan | 9 |
| 2.2.2 Manfaat Tanaman Baby Kailan | 9 |
| 2.2.3 Syarat Tumbuh Tanaman Baby Kailan | 10 |
| 2.2.4 Budidaya Tanaman Baby Kailan Secara Hidroponik | 11 |
| 2.3 Media Tanam <i>Cocopeat</i> | 11 |
| III. METODOLOGI PENELITIAN | 13 |
| 3.1 Waktu dan Tempat Penelitian | 13 |

| | |
|---|-----------|
| 3.2 Alat dan Bahan..... | 13 |
| 3.3 Prosedur Penelitian | 14 |
| 3.3.1 Pendekatan Desain | 15 |
| 3.3.2 Proses Budidaya Tanaman | 20 |
| 3.3.4 Pengukuran Kadar Air <i>Cocopeat</i> | 21 |
| 3.3.5 Uji Kinerja | 21 |
| 3.3.6 Pengamatan..... | 22 |
| 3.3.7 Analisis | 23 |
| IV. HASIL DAN PEMBAHASAN..... | 24 |
| 4.1 Sistem Hidroponik Pasang Surut | 24 |
| 4.1.1. Kerangka Sistem Hidroponik Pasang Surut..... | 25 |
| 4.1.2. Instalasi Pipa dan Kinerja Sistem Hidroponik Pasang Surut..... | 27 |
| 4.2 Pengamatan Lingkungan..... | 29 |
| 4.2.1 Suhu | 29 |
| 4.2.2 Kelembaban Relatif (RH) | 33 |
| 4.2.3 Intensitas Cahaya | 36 |
| 4.2 Pengamatan Larutan Nutrisi..... | 38 |
| 4.2.1 Suhu Larutan Nutrisi..... | 39 |
| 4.2.2 Nilai <i>Electrical Conductivity</i> (EC)..... | 39 |
| 4.2.3 Nilai Derajat Keasaman (pH)..... | 41 |
| 4.2.4 Data Evapotranspirasi | 43 |
| 4.3 Pertumbuhan Tanaman | 44 |
| 4.3.1 Pertumbuhan Vegetatif | 44 |
| 4.3.2 Hasil Panen (Generatif)..... | 47 |

| | |
|------------------------------|----|
| V. KESIMPULAN DAN SARAN..... | 50 |
| 5.1 Kesimpulan | 50 |
| 5.2 Saran..... | 50 |
| DAFTAR PUSTAKA | 51 |
| LAMPIRAN | 54 |