DAFTAR ISI

ABSTRAK ......................................................................................................................... i
ABSTRACT .......................................................................................................................... ii
KATA PENGANTAR.............................................................................................................. iii
DAFTAR ISI .......................................................................................................................... v
DAFTAR GAMBAR ............................................................................................................... vii
DAFTAR TABEL ................................................................................................................... viii
DAFTAR SINGKATAN DAN LAMBANG ............................................................................ x

BAB I PENDAHULUAN ........................................................................................................ 1
1.1 Latar Belakang .............................................................................................................. 1
1.2 Rumusan Masalah ....................................................................................................... 2
1.3 Batasan Masalah ......................................................................................................... 2
1.4 Tujuan Penelitian ....................................................................................................... 3
1.5 Manfaat Penelitian ..................................................................................................... 3

BAB II TINJAUAN PUSTAKA ............................................................................................. 4
2.1 Pangan Fungsional ..................................................................................................... 4
2.2 Prebiotik ...................................................................................................................... 4
2.2.1 Kulit Pisang sebagai Prebiotik .............................................................................. 4
2.2.2 Klasifikasi Tanaman Pisang Raja Bulu .................................................................. 5
2.2.3 Karbohidrat dalam Kulit Pisang Raja Bulu .......................................................... 6
2.3 Probiotik ...................................................................................................................... 6
2.4 Tinjauan Umum Bakteri Lactobacillus casei ................................................................ 7
2.5 Tinjauan Umum Bakteri Lactobacillus acidophilus ..................................................... 8
2.6 Kurva Pertumbuhan Bakteri ....................................................................................... 8
2.7 Pengukuran dengan Spektrofotometer UV-Vis ........................................................... 9
2.8 Analisis Gula Reduksi dengan Metode DNS ............................................................... 10
2.9 Analisis Jumlah Bakteri dengan Standar Mc. Farland ............................................... 11

BAB III METODE PENELITIAN ......................................................................................... 12
3.1 Waktu dan Tempat Penelitian ................................................................................... 12
3.2 Bahan, Alat, dan Instrumentasi .................................................................................. 12
3.3 Prosedur ....................................................................................................................... 12
3.3.1 Preparasi Sampel Pembuatan Tepung Kulit Pisang Raja Bulu ............................... 13
3.3.2 Pembuatan Stok Kultur Bakteri Asam Laktat ......................................................... 13
3.3.3 Pembuatan Kurva Pertumbuhan Bakteri................................. 13
3.3.4 Pembuatan Starter ............................................................. 14
3.3.5 Fermentasi Tepung Kulit Pisang Raja Bulu .......................... 14
3.3.6 Analisis pH ........................................................................ 14
3.3.7 Analisis Total Asam ........................................................... 14
3.3.8 Analisis Gula Reduksi ......................................................... 14
3.3.9 Analisis Jumlah Sel Bakteri ............................................... 15

BAB IV HASIL DAN PEMBAHASAN .............................................. 16
4.1 Kurva Pertumbuhan Bakteri ................................................... 16
4.2 Tepung Kulit Pisang Raja Bulu .............................................. 17
4.3 Fermentasi Tepung Kulit Pisang Bulu .................................... 17
4.3.1 Analisis pH ....................................................................... 17
4.3.2 Analisis Total Asam ........................................................... 18
4.3.3 Analisis Gula Reduksi ......................................................... 20
4.3.4 Analisis Jumlah Bakteri ....................................................... 21

BAB V KESIMPULAN DAN SARAN .............................................. 23
5.1 Kesimpulan ........................................................................... 23
5.2 Saran .................................................................................... 23

DAFTAR PUSTAKA ........................................................................ 24

SUBJEK INDEKS .......................................................................... 27

LAMPIRAN .................................................................................. 28
Lampiran A: Data Kurva Pertumbuhan Bakteri .......................... 28
Lampiran B: Hasil Analisis pH .................................................... 29
Lampiran C: Hasil Analisis Total Asam ..................................... 30
Lampiran D: Hasil Analisis Kadar Gula Reduksi ....................... 32
Lampiran E: Hasil Analisis Jumlah Bakteri ............................... 35
Lampiran F: Bagian Cara Kerja Penelitian ................................. 37