

## DAFTAR PUSTAKA

- Adisarwanto. R. 2005. *Meningkatkan hasil panen kedelai di lahan sawah kering pasang surut*. Penerbit Swadaya.
- Ambak, K., & L. Melling. 2000. "Management practices for sustainable cultivation of crop plants on tropical peatlands" The International Symposium on Tropical Peatlands Bogor : UG M Press.
- Atlas, Ronald M. 2009. *Handbook of microbiological media 4<sup>th</sup> Edition*. Taylor and Francis: CRC press web site
- Badan Pusat Data & Sistem Informasi Pertanian Kementerian Pertanian tahun 2016. *Petunjuk teknis pengelolaan produksi kedelai dan bantuan pemerintah tahun 2016*. Jakarta: Kementerian Pertanian.
- Chen. Y. P, P. D. Rekha, A. B. Arun, F. T. Shen, W. A. Lai, 2006. *Opical Soil and Their Tricalcium Phosphate Solubilizing Abilities,*" *Applied Soil Ecology*: 33-41.
- Danapriatna, N., B. Hutagalung & Hinderah, R. 2013. Optimasi produksi hormon, nitrogen total dan kepadatan sel *Azotobacter* pada inokulasi cair melalui penambahan Fe dan Mo. *Agroteknos*: 115–120.
- Duaja, M.D., Arzita., dan Y, Redo. 2012. Analisis tumbuh selada (*Lactuca sativa* L.) Pada perbedaan jenis pupuk organik cair. *Bioplantae*: 33-41.
- Figueiredo Ma´rcia do VB., L. Seldin, FF. de Araujo, and R de LR. Mariano. 2010. *Plant growth promoting rhizobacteria: fundamentals and applications*. Dalam : Maheshwari DK. (ed.). *Plant growth and health promoting bacteria*, microbiology. Monographs 18, Verlag Berlin Heidelberg.
- George., T.S., P.J. Gregory, M. Wood, D. Read and R.J. Buresh. 2002. Phosphatase activity and organic acids in the rhizosphere of potential agroforestry species and maize. *Soil Biol. Biochem.* 34: 1487-1494.
- Gilman, J.C. 1971. *A manual of soil fungi*. The Iowa State University Press. USA
- Ginting, R.C., Badia, R. Saraswati dan E.F. Husen. 2006. *Mikroorganisme pelarut fosfat. Pupuk organik dan pupuk hayati*. Balai Besar Litbang Sumber Daya Lahan Pertanian. Badan Penelitian dan Pengembangan Pertanian, Bogor: 144-146.



- Ginting, R.C.B., R. Saraswati, dan E. Husen. 2006. *Mikroba pelarut fosfat*. Hlm 141-158 dalam R.D.M. Simanungkalit, D.A. Suriadikarta, R. Saraswati, D. Setyorini, dan W. Hartatik (ed.). *Pupuk organik dan pupuk hayati*. Balai Besar Litbang Sumberdaya Lahan Pertanian. Bogor.
- Hirsch, A.M., M.R. Lum & J.A. Downie. 2001. What makes the rhizobia-legume symbiosis so special? *Plant physiol.* 127: 1484 – 1492.
- Irwan, A. W. 2006. *Budidaya tanaman kedelai (Glycine max (L.) Merrill)*. Fakultas Pertanian: Universitas Padjadjaran.
- Joehandra, Armaini, & S. Yoseva. 2013. Kajian beberapa komposisi pupuk dan pembenah tanah terhadap komponen produksi Kedelai (*Glycine max (L.) Merrill*) pada sistem inter cropping dengan kelapa sawit di lahan gambut. (Online), (<https://repository.unri.ac.id/xmlui/handle/123456789/1961>), diakses pada tanggal 13 Januari 2019 di Makassar).
- Jumrawati. 2010. Efektivitas inokulasi *Rhizobium* sp. terhadap pertumbuhan dan hasil kedelai pada tanah jenuh air. *Widyariset* 13(2): 47-55.
- Kiswanto., D. Indradewa., & E.T.S.Putra. 2011. Pertumbuhan dan hasil jagung (*Zea mays* L.), kacang tanah (*Arachis hypogaea* L.), dan jahe (*Zingiber officinale* var. *officinale*) pada sistem agroforestri jati di zona ledok wonosari, Gunung Kidul. Fakultas Pertanian Gadjah Mada. Yogyakarta.
- Kumar, A., A. Prakash., & B.N. Johri. 2011. *Bacillus* as PGPR in crop ecosystem. bacteria in agrobiolgy; Crop Ecosystem. In: D. K. Maheshwari (ed.). *Bacteria in Agrobiolgy: Crop Ecosystems*. Vol: 37-59.
- Latupapua. 2001. Daya pacu mikroba pelarut fosfat dan penambat nitrogen pada tanaman jagung. *J. Biol. Indon.* 3(2): 99-107.
- Lekatompessy, S.J.R. 2012. Pengaruh perlakuan insersi Bakteri *Rhizobium* sp. dan periode simpan terhadap hasil dan mutu fisiologi benih kedelai (*Glycine max* L. Merrill). Tesis. Bogor: Sekolah Pascasarjana Institut Pertanian Bogor.
- Lingga, P. 2003. Petunjuk penggunaan pupuk. Jakarta: Penebar Swadaya.
- Mohan, V., A. Radhakrishnan. 2012. Screening of phosphate solubilizing bacterial isolates for the growth improvement of tectona grandis. *Research J. of Microbiology*: 101-113.

E. 2006. Pemanfaatan mikroba dalam bioremediasi: suatu teknologi alternatif untuk pelestarian lingkungan. pidato



pengukuhan jabatan guru besar tetap dalam bidang mikrobiologi pada Fakultas Matematika dan Ilmu Pengetahuan Alam. Universitas Sumatera Utara Medan.

Nosrati, R., P. Owlia, H. Saderi, I. Rasooli & MA. Malboobi. 2014. Phosphate solubilization characteristics of efficient nitrogen fixing soil *Azotobacter* strains *Iran. Microbiology* 6: 285-295.

Nursanti Ida. 2008. Pengaruh bakteri pelarut fosfat terhadap ketersediaan fosfat dan pertumbuhan tanaman. *Jurnal Ilmiah Universitas Batanghari Jambi*: 134-140

Permanasari, I., M. Irfan, & Abizar. 2014. Pertumbuhan dan hasil kedelai (*Glycine max* (L.) Merrill) dengan pemberian rhizobium dan pupuk urea pada media gambut. *Argoteknologi* 5(1): 29-34

Permatasari, A.D & Tutik, N. 2014. Pengaruh inokulan bakteri penambat nitrogen, bakteri pelarut fosfat dan mikoriza asal desa condro, lumajang, jawa timur terhadap pertumbuhan tanaman cabai rawit. *J. Sains Dan Seni Pomits*: 87-94.

Pratama, B.J. 2016. Pengaruh dosis pemupukan NPK majemuk susulan yang diaplikasikan saat awal berbunga (R1) pada pertumbuhan dan hasil tanaman kedelai (*Glycine max* (L.) Merrill). Fakultas Pertanian Universitas Lampung.

Pusat Data Dan Sistem Informasi Pertanian Kementerian Pertanian. 2016. *Outlook komoditas sub sektor tanaman pangan. Pusat data dan sistem informasi pertanian kementerian pertanian*.

Puspita, A.A. 2015. Isolasi bakteri yang berpotensi sebagai pelarut fosfat pada tanaman kedelai (*Glycine Max*) Di Wonogiri. *EL-VIVO* 3(1): 1-5.

Radwan, FI. 2002. Response of some maize cultivars to VA mycorrhizal inoculation, biofertilization and soil nitrogen application. *Alexandria J. of Agricultural Research*. 43: 43-56.

Raharjo, B. 2004. "Penapisan Rhizobakteri tahan tembaga (Cu) dan mampu mensintesis IAA dari Rizosfer kedelai (*Glycine max* (L.) Merrill). [Tesis] Bandung : Institut Teknologi Bandung.

Raintung, J.S.M. 2010. Pengolahan tanah dan hasil kedelai (*Glycine max* L. Merrill). *Soil Environment* 8(2): 65-68.

Rao, S. 2007. Mikroorganisme tanah dan pertumbuhan tanaman. Jakarta universitas Indonesia Press.

N.P., S. Muliadihardja, & F. Nurlita. 2008. Isolasi dan identifikasi bakteri penambat nitrogen non simbiosis dari dalam tanah. *J. Penelitian dan Pengembangan Sains & Humaniora*. 2: 68-80.



- Rodriguez, H., R. Fraga. 1999. Research review paper: Phosphate solubilizing bacteria and their role in lant growth promoting. *Biotechnology Advance*, 17: 319-339.
- Salisbury, F.B. & C.W. Ross. 1995. *Fisiologi tumbuhan. Terjemahan dari: plant physiology*. Penerjemah: Lukman, D.R. Dan Sumaryono. Penerbit ITB, Bandung.
- Saragih Suryanti. 2015. *Keberadaan fungi pelarut fosfat pada tanah bekas erupsi gunung sinabung di kabupaten karo*. Program Studi Kehutanan. Fakultas Pertanian. Universitas Sumatera Utara.
- Saraswati, R. 2000. *Peranan pupuk hayati dalam peningkatan produktivitas pangan*. Hal.: 46 - 54: Suwarno, et al. (Ed): tonggak kemajuan teknologi produksi tanaman pangan: paket dan komponen teknologi produksi padi. Simposium penelitian tanaman pangan IV, Bogor, 22-24 November 1999. Puslitbangtan Badan Litbang Pertanian.
- Setiyo Yohanes. IBW Gunam. Sumiyati & Victor Manuntun Manurung. 2014. *Kajian populasi mikroba pada proses bioremediasi secara in-situ di lahan budidaya kentang*. Seminar Nasional Sains dan Teknologi (Senastek), Denpasar Bali.
- Simanungkalit, R.D.M., R. Saraswati, R.D. Hastuti & E. Husen. 2006. Bakteri penambat nitrogen. Hlm 113-140 dalam R.D.M. Simanungkalit, D.A. Suriadikarta, R. Saraswati, D. Setyorini, dan W. Hartatik (Ed.). *Pupuk organik dan pupuk hayati*. Balai Besar Litbang Sumberdaya Lahan Pertanian, Badan Penelitian dan Pengembangan Pertanian. Bogor.
- Sumarno. 1987. *Kedelai dan cara budidaya*. Yasaguna Bogor.
- Suprpto. 1997. *Bertanam kedelai*. Penebar Swadaya.
- Suryana, A. 2012. Pengaruh waktu aplikasi dan dosis pupuk majemuk NPK pada pertumbuhan dan hasil kedelai varietas grobogan.: Fakultas Pertanian. Universitas Lampung.
- Sy, A., E. Giraud, P. Jourand, N. Garcia, A. Willem, P. de Lajudie, Y. Prin, M. Neyra, M. Gillis, B. Boivin-Masson & B. Dreyfus. 2001. Methylo trophic Methylobacterium bacteria nodulate and fix nitrogen in symbiosis with legumes. *Bacteriology*. 183: 214- 220.
- Syahriyah, N. 2014. *Pengujian efektivitas pupuk hayati majemuk pada tanaman kedelai (Glycine max)*. [Skripsi]. Bogor: Departemen Ilmu Tanah dan Sumberdaya Lahan Fakultas Pertanian IPB.
- v. 2000. Growth promotion of plants inoculated with phosphate solubilizing fungi. *Adv. Agron*. 69 : 99-151.



Widawati S. & A. Muharam. 2012. Uji laboratorium *Azospirillum* sp. yang diisolasi dari beberapa ekosistem. *Hortikultura* 22 (3): 258-267.

Zainuddin D. U. 2017. *Pertumbuhan dan produksi tanaman kedelai yang di aplikasi bakteri Rhizobium spp. dan Actinomycetes spp.* [Tesis]. Makassar : Universitas Hasanuddin.



# LAMPIRAN



Tabel Lampiran 1. Deskripsi Varietas Kedelai Grobogan  
(Balitkabi, 2016)

| <b>GROBOGAN</b>   |  |
|-------------------|--|
| Dilepas tahun     | : 2008   |
| SK Mentan         | : 238/Kpts/SR.120/3/2008   |
| Asal              | : Pemurnian populasi Lokal Malabar Grobogan  |
| Tipe pertumbuhan  | : determinit   |
| Warna hipokotil   | : ungu   |
| Warna epikotil    | : ungu   |
| Warna daun        | : hijau agak tua   |
| Warna bulu batang | : coklat   |
| Warna bunga       | : ungu   |
| Warna kulit biji  | : kuning muda  |
| Warna polong tua  | : coklat   |
| Warna hilum biji  | : coklat   |
| Bentuk daun       | : lanceolate   |
| Percabangan       | : -  |
| Umur berbunga     | : 30-32 hari   |
| Umur polong masak | : ±76 hari   |
| Tinggi tanaman    | : 50–60 cm   |
| Bobot biji        | : ±18 g/100 biji   |
| Rata-rata hasil   | : 2,77 ton/ha  |
| Potensi hasil     | : 3,40 ton/ha  |
| Kandungan protein | : 43,9%  |
| Kandungan lemak   | : 18,4%  |
| Daerah sebaran    | : Beradaptasi baik pada beberapa kondisi lingkungan tumbuh yang berbeda cukup besar, pada musim hujan dan daerah beririgasi baik.                                  |
| Sifat lain        | : - polong masak tidak mudah pecah, dan<br>- pada saat panen daun luruh 95–100% saat panen >95% daunnya telah luruh  |
| Pemulia           | : Suhartina, M. Muclish Adie   |
| Peneliti          | : T. Adisarwanto, Sumarsono, Sunardi, Tjandramukti, Ali Muchtar, Sihono, SB, Purwanto, Siti Khawariyah, Murbantoro, Alrodi, Tino Vihara, Farid Mufhti, dan Suharno |
| Pengusul          | : Pemerintah Daerah Kabupaten Grobogan, BPSB Jawa Tengah, Pemerintah Daerah Prov Jawa Tengah   |

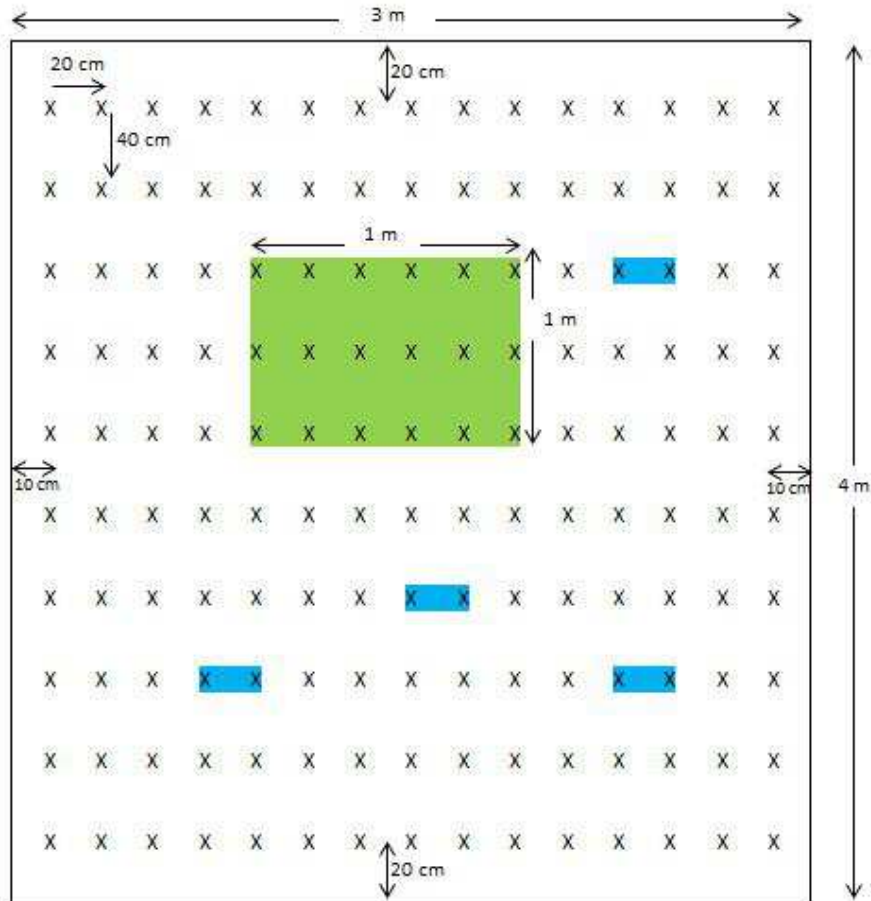


| Ulangan I |  | Ulangan II |  | Ulangan III |
|-----------|--|------------|--|-------------|
| f2p3      |  | f1p1       |  | f3p3        |
| f2p1      |  | f1p2       |  | f3p1        |
| f2p2      |  | f1p3       |  | f3p2        |
| f3p1      |  | f2p3       |  | f1p2        |
| f3p2      |  | f2p1       |  | f1p3        |
| f3p3      |  | f2p2       |  | f1p1        |
| f1p3      |  | f3p2       |  | f2p1        |
| f1p2      |  | f3p1       |  | f2p3        |
| f1p1      |  | f3p3       |  | f2p2        |

Gambar Lampiran 1. Layout percobaan di Lapangan







- Keterangan:
- Petak produksi
  - Tanaman yang akan di destruksi

Gambar Lampiran 2. Layout Populasi Tanaman Kedelai di Petak Percobaan



LABORATORIUM KIMIA DAN KESUBURAN TANAH  
DEPARTEMEN ILMU TANAH FAKULTAS PERTANIAN  
UNIVERSITAS HASANUDDIN  
Kampus Tamalincea Jl. Perintis Kemerdekaan Km.10, Makassar  
Telp. (0411) 587 076, Fax (0411) 587 076



### HASIL ANALISIS CONTOH TANAH

Nomor : 0172.T.LKKT/2018  
Permintaan : Ambri  
Asal Contoh/Lokasi : Ds. Taroang, Kec. Galesong Selatan, Kab. Takalar  
Objek : Penelitian  
Tgl.Penerimaan : 24 Agustus 2018  
Tgl.Pengujian : 31 Agustus 2018  
Jumlah : 3 Contoh Tanah

| Urut | Laboratorium | Pengirim | Tekstur (pipet) |      |      | Ekstrak 1:2.5 |    | Terhadap contoh kering 105 °C |                                 |                      |                                | Nilai Tukar Kation (NH <sub>4</sub> -Acetat 1N, pH7) |   |    |      | (HCl 25%) |    |               |    |  |                  |       |
|------|--------------|----------|-----------------|------|------|---------------|----|-------------------------------|---------------------------------|----------------------|--------------------------------|--|---|----|------|-----------|----|---------------|----|--|------------------|-------|
|      |              |          | Pasir           | Debu | Liat | Klas Tekstur  | pH | H <sub>2</sub> O              | Salinitas<br>dS m <sup>-1</sup> | Walkley & Black<br>C | Bahan organik<br>Kjeldahl<br>N | C/N  | Olsen<br>P <sub>2</sub> O <sub>5</sub><br>ppm | Ca | Mg   | K         | Na | Jumlah<br>KTK | KB | P <sub>2</sub> O <sub>5</sub><br>mg 100g <sup>-1</sup> | K <sub>2</sub> O |       |
| 1    | A.1          | 1        | -               | -    | -    | -             | -  | -                             | 1.68                            | 0.24                 | 7                              | 6.89   | -   | -  | 0.36 | -         | -  | -             | -  | -  | -                | -     |
| 2    | A.2          | 2        | -               | -    | -    | -             | -  | -                             | 1.74                            | 0.17                 | 10                             | 9.78   | -   | -  | 0.25 | -         | -  | -             | -  | -  | -                | -     |
| 3    | A.3          | 3        | -               | -    | -    | -             | -  | -                             | 1.55                            | 0.13                 | 12                             | 9.87   | -   | -  | 0.33 | -         | -  | -             | -  | -  | -                | 22.52 |

Catatan :  
Hasil pengujian ini hanya berlaku bagi contoh yang diuji dan tidak untuk diperbanyak



Gambar lampiran 3. Data analisis tanah lokasi Desa Taroang Kecamatan Galesong Selatan Kabupaten Takalar



LABORATORIUM KIMIA MAKANAN TERNAK  
JURUSAN NUTRISI DAN MAKANAN TERNAK  
FAKULTAS PETERNAKAN  
UNIVERSITAS HASANUDDIN

HASIL ANALISIS BAHAN

| No | Kode Sampel | Protein Kasar (%) |
|----|-------------|-------------------|
| 1  | F1P1 U1     | 19,00             |
| 2  | F1P1 U2     | 19,05             |
| 3  | F1P1 U3     | 18,63             |
| 4  | F1P2 U1     | 17,24             |
| 5  | F1P2 U2     | 18,31             |
| 6  | F1P2 U3     | 17,74             |
| 7  | F1P3 U1     | 18,30             |
| 8  | F1P3 U2     | 19,04             |
| 9  | F1P3 U3     | 18,39             |
| 10 | F2P1 U1     | 17,65             |
| 11 | F2P1 U2     | 16,41             |
| 12 | F2P1 U3     | 17,74             |
| 13 | F2P2 U1     | 19,23             |
| 14 | F2P2 U2     | 19,52             |
| 15 | F2P2 U3     | 19,81             |
| 16 | F2P3 U1     | 17,90             |
| 17 | F2P3 U2     | 18,10             |
| 18 | F2P3 U3     | 18,01             |
| 19 | F3P1 U1     | 18,87             |
| 20 | F3P1 U2     | 17,11             |
| 21 | F3P1 U3     | 17,72             |
| 22 | F3P2 U1     | 17,18             |
| 23 | F3P2 U2     | 18,21             |
| 24 | F3P2 U3     | 17,92             |
| 25 | F3P3 U1     | 17,71             |
| 26 | F3P3 U2     | 18,26             |
| 27 | F3P3 U3     | 17,70             |

Makassar, 18 Januari 2019



Muhammad Syahrul

Nip. 19790603 2001 12 1 001

Gambar Lampiran 4. Analisis Kadar Protein Tanaman Kedelai di Petak Percobaan



Tabel Lampiran 2. Data Curah Hujan Bulanan (Milimeter) Tahun 2017

| Thn  | Bulan |     |     |     |     |     |     |     |     |     |     |     |
|------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | Jan   | Feb | Mar | Apr | Mei | Jun | Jul | Ags | Sep | Okt | Nov | Des |
| 2017 | 627   | 436 | 302 | 166 | 31  | 98  | 35  | 4   | 28  | 70  | 260 | X   |

Sumber : Stasiun BPPK Galesong, Kabupaten Takalar, Sulawesi Selatan dengan koordinat  $05^{\circ} 18' 55,8''$  LS dan  $119^{\circ} 23' 11,0''$  BT pada ketinggian 15 mdpl.

Keterangan : 0 = Curah Hujan < 0,5 mm

- = Tidak ada hujan

X = Data belum/tidak masuk





Gambar Lampiran 5. Isolasi dan inokulasi mikroba penambat nitrogen dan mikroba pelarut fosfat: (a) Mengisolasi mikroba penambat nitrogen dan mikroba pelarut fosfat pada medium; (b) Menginkubasi mikroba penambat nitrogen dan mikroba pelarut fosfat dan dishaker dengan kecepatan 130 rpm selama 7 hari; (c) Pengenceran kepadatan bakteri sebanyak 100 mL; dan (d) menghitung kepadatan mikroba penambat nitrogen dan mikroba pelarut fosfat.



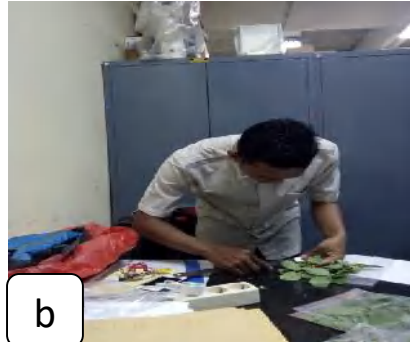
Gambar Lampiran 6. Penanaman dan pemeliharaan tanaman kedelai pada petak percobaan: (a) Pengolahan lahan dan pembuatan petak percobaan; (b) Penanaman benih kedelai dengan jarak tanam 40 cm x 20 cm; (c) inokulasi mikroba penambat nitrogen mikroba pelarut fosfat; (d) saluran pengairan; (e) pemeliharaan tanaman kedelai; dan (f) serangan hama ulat.



Gambar Lampiran 7. Panen dan pasca panen: (a) Panen kedelai dengan menggunakan sabit; dan (b) Penjemuran brangkasan kedelai dengan sinar matahari selama 3 hari



a



b



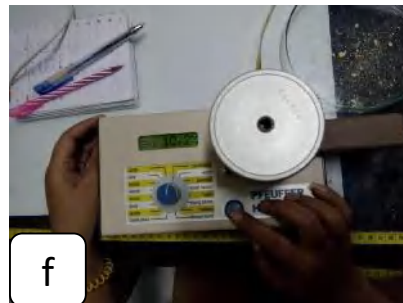
c



d



e



f

Gambar Lampiran 8. Pengamatan luas daun serta parameter produksi kedelai: (a) pertumbuhan kedelai umur 4 MST; (b) luas daun 4 MST; (c) Menimbang berat kering tanaman kedelai; (d) menghitung cabang produktif, polong berisi, polong hampa, presentase polong; (e) Hasil biji per petak; dan (f) Pengukuran kadar air biji.



Tabel Lampiran 3.a. Hasil pengamatan rata-rata laju tumbuh tanaman periode 1 (4-5 MST) yang telah ditransformasi ke x

| Mikroba penambat Nitrogen (f)      | Mikroba pelarut fosfat (p)            | Kelompok |       |       | Total | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|-------|-----------|
|                                    |                                       | 1        | 2     | 3     |       |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 1.57     | 2.13  | 1.36  | 5.06  | 1.69      |
|                                    | <i>Bacillus</i> sp. (indigenous) (p2) | 1.51     | 1.81  | 0.97  | 4.28  | 1.43      |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.99     | 1.55  | 1.25  | 3.80  | 1.27      |
| Sub total                          |                                       | 4.07     | 5.48  | 3.59  | 13.14 |           |
| <i>Streptomyces</i> sp. (f2)       | <i>Bacillus cereus</i> (p1)           | 1.75     | 1.80  | 1.32  | 4.86  | 1.62      |
|                                    | <i>Bacillus</i> sp. (indigenous) (p2) | 1.46     | 1.74  | 1.26  | 4.46  | 1.49      |
|                                    | <i>P. aeruginosa</i> (p3)             | 1.26     | 1.57  | 1.34  | 4.17  | 1.39      |
| Sub total                          |                                       | 4.47     | 5.10  | 3.92  | 13.49 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 1.28     | 0.93  | 1.24  | 3.45  | 1.15      |
|                                    | <i>Bacillus</i> sp. (indigenous) (p2) | 1.17     | 1.41  | 1.33  | 3.91  | 1.30      |
|                                    | <i>P. aeruginosa</i> (p3)             | 1.19     | 1.36  | 1.49  | 4.05  | 1.35      |
| Sub total                          |                                       | 3.65     | 3.71  | 4.06  | 11.41 |           |
| Total                              |                                       | 12.19    | 14.29 | 11.56 | 38.04 |           |

Tabel Lampiran 3.b. Sidik ragam rata-rata laju tumbuh tanaman periode 1 (4-5 MST) yang telah ditransformasi ke x

| SK          | DB | JK      | KT      | F.HITUNG | F.TABEL <sub>0,1</sub> |        |
|-------------|----|---------|---------|----------|------------------------|--------|
| KELOMPOK    | 2  | 0.04552 | 0.02276 | 1.98     | tn                     | 4.3246 |
| Petak Utama | 2  | 0.02748 | 0.01374 | 1.19     | tn                     | 4.3246 |
| ACAK (A)    | 4  | 0.04609 | 0.01152 |          |                        |        |
| Anak Petak  | 2  | 0.01028 | 0.00514 | 1.69     | tn                     | 2.8068 |
| INTERAKSI   | 4  | 0.03113 | 0.00778 | 2.56     | *                      | 2.4801 |
| ACAK (B)    | 12 | 0.03648 | 0.00304 |          |                        |        |
| TOTAL       | 26 | 0.19698 |         |          |                        |        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
4,09%; KK B = 12,37%



Tabel Lampiran 4.a. Hasil pengamatan rata-rata laju tumbuh tanaman periode 2 (5-6 MST) yang telah ditransformasi ke x

| Mikroba penambat Nitrogen (f)      | Mikroba pelarut fosfat (p)            | Kelompok |       |       | Total | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|-------|-----------|
|                                    |                                       | 1        | 2     | 3     |       |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 1.67     | 0.99  | 2.78  | 5.44  | 1.81      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 1.42     | 1.32  | 2.01  | 4.76  | 1.59      |
|                                    | <i>P. aeruginosa</i> (p3)             | 2.02     | 0.90  | 2.32  | 5.24  | 1.75      |
| Sub total                          |                                       | 5.11     | 3.21  | 7.11  | 15.43 |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 2.31     | 1.67  | 2.31  | 6.29  | 2.10      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 1.52     | 1.97  | 2.14  | 5.64  | 1.88      |
|                                    | <i>P. aeruginosa</i> (p3)             | 2.24     | 1.24  | 2.66  | 6.14  | 2.05      |
| Sub total                          |                                       | 6.08     | 4.88  | 7.11  | 18.07 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 2.21     | 2.34  | 2.30  | 6.84  | 2.28      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 2.05     | 1.76  | 2.27  | 6.08  | 2.03      |
|                                    | <i>P. aeruginosa</i> (p3)             | 1.92     | 1.83  | 2.08  | 5.84  | 1.95      |
| Sub total                          |                                       | 6.18     | 5.93  | 6.65  | 18.76 |           |
| Total                              |                                       | 17.36    | 14.03 | 20.88 | 52.27 |           |

Tabel Lampiran 4.b. Sidik ragam rata-rata laju tumbuh tanaman periode 2 (5-6 MST) yang telah ditransformasi ke x

| SK          | DB | JK      | KT      | F.HITUNG |    | F.TABEL <sub>0,1</sub> |
|-------------|----|---------|---------|----------|----|------------------------|
| KELOMPOK    | 2  | 0.26067 | 0.13034 | 6.16     | *  | 4.3246                 |
| Petak Utama | 2  | 0.06860 | 0.03430 | 1.62     | tn | 4.3246                 |
| ACAK (A)    | 4  | 0.08464 | 0.02116 |          |    |                        |
| Anak Petak  | 2  | 0.02509 | 0.01254 | 1.15     | tn | 2.8068                 |
| INTERAKSI   | 4  | 0.00932 | 0.00233 | 0.21     | tn | 2.4801                 |
| ACAK (B)    | 12 | 0.13034 | 0.01086 |          |    |                        |
| TOTAL       | 26 | 0.57867 |         |          |    |                        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
 3,76%; KK B = 17,02%



Tabel Lampiran 5.a. Hasil pengamatan rata-rata laju tumbuh tanaman periode 3 (6-7 MST) yang telah ditransformasi ke x

| Mikroba penambat Nitrogen (f)      | Mikroba pelarut fosfat (p)            | Kelompok |       |       | Total | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|-------|-----------|
|                                    |                                       | 1        | 2     | 3     |       |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 2.68     | 1.34  | 1.55  | 5.57  | 1.86      |
|                                    | <i>Bacillus</i> sp. (indigenous) (p2) | 2.12     | 1.59  | 3.18  | 6.89  | 2.30      |
|                                    | <i>P. aeruginosa</i> (p3)             | 2.06     | 2.52  | 2.75  | 7.33  | 2.44      |
| Sub total                          |                                       | 6.85     | 5.45  | 7.48  | 19.79 |           |
| <i>Streptomyces</i> sp. (f2)       | <i>Bacillus cereus</i> (p1)           | 1.87     | 1.25  | 2.17  | 5.29  | 1.76      |
|                                    | <i>Bacillus</i> sp. (indigenous) (p2) | 1.97     | 0.89  | 1.04  | 3.90  | 1.30      |
|                                    | <i>P. aeruginosa</i> (p3)             | 1.40     | 1.70  | 1.64  | 4.74  | 1.58      |
| Sub total                          |                                       | 5.24     | 3.84  | 4.85  | 13.92 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 1.47     | 0.85  | 1.78  | 4.10  | 1.37      |
|                                    | <i>Bacillus</i> sp. (indigenous) (p2) | 1.51     | 1.17  | 1.37  | 4.05  | 1.35      |
|                                    | <i>P. aeruginosa</i> (p3)             | 1.58     | 1.31  | 1.95  | 4.84  | 1.61      |
| Sub total                          |                                       | 4.55     | 3.33  | 5.10  | 12.98 |           |
| Total                              |                                       | 16.65    | 12.62 | 17.43 | 46.70 |           |

Tabel Lampiran 5.b. Sidik ragam rata-rata laju tumbuh tanaman periode 3 (6-7 MST) yang telah ditransformasi ke x

| SK          | DB | JK      | KT      | F.HITUNG |    | F.TABEL <sub>0,1</sub> |
|-------------|----|---------|---------|----------|----|------------------------|
| KELOMPOK    | 2  | 0.14762 | 0.07381 | 21.72    | ** | 4.3246                 |
| Petak Utama | 2  | 0.30229 | 0.15114 | 44.49    | ** | 4.3246                 |
| ACAK (A)    | 4  | 0.01359 | 0.00340 |          |    |                        |
| Anak Petak  | 2  | 0.03006 | 0.01503 | 0.63     | tn | 2.8068                 |
| INTERAKSI   | 4  | 0.07203 | 0.01801 | 0.76     | tn | 2.4801                 |
| ACAK (B)    | 12 | 0.28477 | 0.02373 |          |    |                        |
| TOTAL       | 26 | 0.85035 |         |          |    |                        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
0,65%; KK B = 28,16%



Tabel Lampiran 6.a. Hasil pengamatan rata-rata laju asimilasi bersih periode 1 (4-5 MST) yang telah ditransformasi ke x

| Mikroba penambat Nitrogen (f)      | Mikroba pelarut fosfat (p)            | Kelompok |       |       | Total | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|-------|-----------|
|                                    |                                       | 1        | 2     | 3     |       |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 0.158    | 0.208 | 0.120 | 0.486 | 0.162     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.154    | 0.194 | 0.088 | 0.436 | 0.145     |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.090    | 0.149 | 0.109 | 0.347 | 0.116     |
| Sub total                          |                                       | 0.402    | 0.551 | 0.317 | 1.270 |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 0.177    | 0.190 | 0.120 | 0.488 | 0.163     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.152    | 0.174 | 0.121 | 0.447 | 0.149     |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.123    | 0.156 | 0.121 | 0.399 | 0.133     |
| Sub total                          |                                       | 0.452    | 0.52  | 0.362 | 1.333 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 0.124    | 0.087 | 0.110 | 0.321 | 0.107     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.116    | 0.146 | 0.117 | 0.379 | 0.126     |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.128    | 0.140 | 0.150 | 0.417 | 0.139     |
| Sub total                          |                                       | 0.368    | 0.373 | 0.377 | 1.118 |           |
| Total                              |                                       | 1.222    | 1.443 | 1.056 | 3.721 |           |

Tabel Lampiran 6.b. Sidik ragam rata-rata laju asimilasi bersih periode 1 (4-5 MST) yang telah ditransformasi ke x

| SK          | DB | JK      | KT      | F.HITUNG | F.TABEL <sub>0,1</sub> |        |
|-------------|----|---------|---------|----------|------------------------|--------|
| KELOMPOK    | 2  | 0.00837 | 0.00419 | 3.27     | tn                     | 4.3246 |
| Petak Utama | 2  | 0.00273 | 0.00136 | 1.06     | tn                     | 4.3246 |
| ACAK (A)    | 4  | 0.00513 | 0.00128 |          |                        |        |
| Anak Petak  | 2  | 0.00103 | 0.00051 | 1.39     | tn                     | 2.8068 |
| INTERAKSI   | 4  | 0.00513 | 0.00128 | 3.47     | **                     | 2.4801 |
| ACAK (B)    | 12 | 0.00443 | 0.00037 |          |                        |        |
| TOTAL       | 26 | 0.02681 |         |          |                        |        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
5,97%; KK B = 13,94%



Tabel Lampiran 7.a. Hasil pengamatan rata-rata laju asimilasi bersih periode 2 (5-6 MST) yang telah ditransformasi ke x

| Mikroba penambat Nitrogen (f)      | Mikroba pelarut fosfat (p)            | Kelompok |       |       | Total | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|-------|-----------|
|                                    |                                       | 1        | 2     | 3     |       |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 0.150    | 0.085 | 0.230 | 0.465 | 0.155     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.124    | 0.127 | 0.172 | 0.423 | 0.141     |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.160    | 0.079 | 0.192 | 0.432 | 0.144     |
| Sub total                          |                                       | 0.434    | 0.291 | 0.594 | 1.320 |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 0.193    | 0.153 | 0.196 | 0.542 | 0.181     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.142    | 0.183 | 0.184 | 0.509 | 0.170     |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.180    | 0.117 | 0.226 | 0.523 | 0.174     |
| Sub total                          |                                       | 0.515    | 0.453 | 0.606 | 1.574 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 0.188    | 0.204 | 0.188 | 0.580 | 0.193     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.179    | 0.173 | 0.187 | 0.539 | 0.180     |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.174    | 0.174 | 0.192 | 0.540 | 0.180     |
| Sub total                          |                                       | 0.541    | 0.551 | 0.567 | 1.659 |           |
| Total                              |                                       | 1.49     | 1.296 | 1.767 | 4.553 |           |

Tabel Lampiran 7.b. Sidik ragam rata-rata laju asimilasi bersih periode 2 (5-6 MST) yang telah ditransformasi ke x

| SK          | DB | JK      | KT      | F.HITUNG | F.TABEL <sub>0,1</sub> |        |
|-------------|----|---------|---------|----------|------------------------|--------|
| KELOMPOK    | 2  | 0.01247 | 0.00623 | 3.62     | tn                     | 4.3246 |
| Petak Utama | 2  | 0.00693 | 0.00346 | 2.01     | tn                     | 4.3246 |
| ACAK (A)    | 4  | 0.00689 | 0.00172 |          |                        |        |
| Anak Petak  | 2  | 0.00083 | 0.00041 | 0.60     | tn                     | 2.8068 |
| INTERAKSI   | 4  | 0.00004 | 0.00001 | 0.01     | tn                     | 2.4801 |
| ACAK (B)    | 12 | 0.00827 | 0.00069 |          |                        |        |
| TOTAL       | 26 | 0.03543 |         |          |                        |        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
4,62%; KK B = 15,57%



Tabel Lampiran 8.a. Hasil pengamatan rata-rata laju asimilasi bersih periode 3 (6-7 MST) yang telah ditransformasi ke x

| Mikroba penambat Nitrogen (f)      | Mikroba pelarut fosfat (p)            | Kelompok |       |       | Total | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|-------|-----------|
|                                    |                                       | 1        | 2     | 3     |       |           |
| <i>Azotobacter vinilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 0.215    | 0.105 | 0.122 | 0.442 | 0.147     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.163    | 0.140 | 0.261 | 0.563 | 0.188     |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.145    | 0.196 | 0.218 | 0.559 | 0.186     |
| Sub total                          |                                       | 0.523    | 0.441 | 0.6   | 1.564 |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 0.138    | 0.103 | 0.174 | 0.415 | 0.138     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.165    | 0.075 | 0.083 | 0.323 | 0.108     |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.097    | 0.139 | 0.130 | 0.366 | 0.122     |
| Sub total                          |                                       | 0.4      | 0.317 | 0.388 | 1.104 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 0.116    | 0.065 | 0.139 | 0.321 | 0.107     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.120    | 0.101 | 0.107 | 0.327 | 0.109     |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.129    | 0.111 | 0.166 | 0.407 | 0.136     |
| Sub total                          |                                       | 0.365    | 0.278 | 0.412 | 1.055 |           |
| Total                              |                                       | 1.288    | 1.035 | 1.4   | 3.722 |           |

Tabel Lampiran 8.b. Sidik ragam rata-rata laju asimilasi bersih periode 3 (6-7 MST) yang telah ditransformasi ke x

| SK          | DB | JK      | KT      | F.HITUNG |    | F.TABEL <sub>0,1</sub> |
|-------------|----|---------|---------|----------|----|------------------------|
| KELOMPOK    | 2  | 0.00775 | 0.00387 | 16.92    | ** | 4.3246                 |
| Petak Utama | 2  | 0.01754 | 0.00877 | 38.30    | ** | 4.3246                 |
| ACAK (A)    | 4  | 0.00092 | 0.00023 |          |    |                        |
| Anak Petak  | 2  | 0.00145 | 0.00073 | 0.39     | tn | 2.8068                 |
| INTERAKSI   | 4  | 0.00463 | 0.00116 | 0.62     | tn | 2.4801                 |
| ACAK (B)    | 12 | 0.02236 | 0.00186 |          |    |                        |
| TOTAL       | 26 | 0.05464 |         |          |    |                        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
0,97%; KK B = 31,30%



Tabel Lampiran 9.a. Hasil pengamatan rata-rata cabang produktif

| Mikroba penambat Nitrogen<br>(f)   | Mikroba pelarut fosfat<br>(p)         | Kelompok |       |       | Total  | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|--------|-----------|
|                                    |                                       | 1        | 2     | 3     |        |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 9.25     | 10    | 11.25 | 30.5   | 10.17     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 10.5     | 10.13 | 8.75  | 29.38  | 9.79      |
|                                    | <i>P. aeruginosa</i> (p3)             | 8.88     | 9.63  | 11.13 | 29.64  | 9.88      |
| Sub total                          |                                       | 28.63    | 29.76 | 31.13 | 89.52  |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 11       | 9.25  | 9.63  | 29.88  | 9.96      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 9.75     | 9     | 9.63  | 28.38  | 9.46      |
|                                    | <i>P. aeruginosa</i> (p3)             | 12.63    | 12.13 | 13    | 37.76  | 12.59     |
| Sub total                          |                                       | 33.38    | 30.38 | 32.26 | 96.02  |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 10       | 10.88 | 9.63  | 30.51  | 10.17     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 8.5      | 10.13 | 9.13  | 27.76  | 9.25      |
|                                    | <i>P. aeruginosa</i> (p3)             | 10       | 8.5   | 11.5  | 30     | 10.00     |
| Sub total                          |                                       | 28.5     | 29.51 | 30.26 | 88.27  |           |
| Total                              |                                       | 90.51    | 89.65 | 93.65 | 273.81 |           |

Tabel Lampiran 9.b. Sidik ragam rata-rata cabang produktif

| SK          | DB | JK    | KT   | F.HITUNG |    | F.TABEL <sub>0,1</sub> |
|-------------|----|-------|------|----------|----|------------------------|
| KELOMPOK    | 2  | 0.99  | 0.49 | 0.93     | tn | 4.3246                 |
| Petak Utama | 2  | 3.85  | 1.92 | 3.64     | tn | 4.3246                 |
| ACAK (A)    | 4  | 2.11  | 0.53 |          |    |                        |
| Anak Petak  | 2  | 7.86  | 3.93 | 3.82     | *  | 2.8068                 |
| INTERAKSI   | 4  | 10.72 | 2.68 | 2.60     | *  | 2.4801                 |
| ACAK (B)    | 12 | 12.35 | 1.03 |          |    |                        |
| TOTAL       | 26 | 37.87 |      |          |    |                        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
 KK A = 7,16%; KK B = 10,00%



Tabel Lampiran 10.a. Hasil pengamatan rata-rata presentase polong per tanaman

| Mikroba penambat Nitrogen (f)      | Mikroba pelarut fosfat (p)            | Kelompok |       |       | Total  | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|--------|-----------|
|                                    |                                       | 1        | 2     | 3     |        |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 19.63    | 25    | 22.13 | 66.76  | 22.25     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 25       | 21    | 17.38 | 63.38  | 21.13     |
|                                    | <i>P. aeruginosa</i> (p3)             | 20       | 21.5  | 23.25 | 64.75  | 21.58     |
| Sub total                          |                                       | 64.63    | 67.5  | 62.76 | 194.89 |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 25       | 20.13 | 18.13 | 63.26  | 21.09     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 18.88    | 19.13 | 19.38 | 57.39  | 19.13     |
|                                    | <i>P. aeruginosa</i> (p3)             | 26.63    | 25.63 | 29.25 | 81.51  | 27.17     |
| Sub total                          |                                       | 70.51    | 64.89 | 66.76 | 202.16 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 23       | 23.5  | 21    | 67.5   | 22.50     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 18.25    | 20.38 | 17.63 | 56.26  | 18.75     |
|                                    | <i>P. aeruginosa</i> (p3)             | 20.5     | 15.63 | 23.5  | 59.63  | 19.88     |
| Sub total                          |                                       | 61.75    | 59.51 | 62.13 | 183.39 |           |
| Total                              |                                       | 196.9    | 191.9 | 191.7 | 580.44 |           |

Tabel Lampiran 10.b. Sidik ragam rata-rata presentase polong per tanaman

| SK          | DB | JK     | KT    | F.HITUNG | F.TABEL <sub>0,1</sub> |        |
|-------------|----|--------|-------|----------|------------------------|--------|
| KELOMPOK    | 2  | 1.94   | 0.97  | 0.45     | tn                     | 4.3246 |
| Petak Utama | 2  | 19.90  | 9.95  | 4.60     | *                      | 4.3246 |
| ACAK (A)    | 4  | 8.66   | 2.16  |          |                        |        |
| Anak Petak  | 2  | 48.99  | 24.50 | 2.68     | tn                     | 2.8068 |
| INTERAKSI   | 4  | 80.59  | 20.15 | 2.21     | tn                     | 2.4801 |
| ACAK (B)    | 12 | 109.49 | 9.12  |          |                        |        |
| TOTAL       | 26 | 269.58 |       |          |                        |        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata

,84%; KK B = 14,05%





Tabel Lampiran 11.a. Hasil pengamatan rata-rata presentase polong berisi

| Mikroba penambat Nitrogen<br>(f)   | Mikroba pelarut fosfat<br>(p)         | Kelompok |       |       | Total  | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|--------|-----------|
|                                    |                                       | 1        | 2     | 3     |        |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 95.52    | 96.52 | 98.28 | 290.32 | 96.77     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 94.52    | 99.43 | 94.94 | 288.89 | 96.30     |
|                                    | <i>P. aeruginosa</i> (p3)             | 95.65    | 99.44 | 97.85 | 292.94 | 97.65     |
| Sub total                          |                                       | 285.7    | 295.4 | 291.1 | 872.15 |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 95.52    | 95.63 | 95.15 | 286.29 | 95.43     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 97.99    | 90.17 | 96.75 | 284.91 | 94.97     |
|                                    | <i>P. aeruginosa</i> (p3)             | 79.80    | 98.52 | 94.46 | 272.78 | 90.93     |
| Sub total                          |                                       | 273.3    | 284.3 | 286.4 | 843.98 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 97.83    | 98.94 | 98.81 | 295.57 | 98.52     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 97.97    | 84.05 | 92.91 | 274.94 | 91.65     |
|                                    | <i>P. aeruginosa</i> (p3)             | 96.98    | 97.57 | 96.30 | 290.84 | 96.95     |
| Sub total                          |                                       | 292.8    | 280.6 | 288   | 861.35 |           |
| Total                              |                                       | 851.8    | 860.3 | 865.4 | 2577.5 |           |

Tabel Lampiran 11.b. Sidik ragam rata-rata presentase polong berisi

| SK          | DB | JK     | KT    | F.HITUNG |    | F.TABEL <sub>0,1</sub> |
|-------------|----|--------|-------|----------|----|------------------------|
| KELOMPOK    | 2  | 10.60  | 5.30  | 0.33     | tn | 4.3246                 |
| Petak Utama | 2  | 44.88  | 22.44 | 1.42     | tn | 4.3246                 |
| ACAK (A)    | 4  | 63.31  | 15.83 |          |    |                        |
| Anak Petak  | 2  | 31.69  | 15.85 | 0.67     | tn | 2.8068                 |
| INTERAKSI   | 4  | 85.92  | 21.48 | 0.91     | tn | 2.4801                 |
| ACAK (B)    | 12 | 282.30 | 23.52 |          |    |                        |
| TOTAL       | 26 | 518.69 |       |          |    |                        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
 KK A = 4,16%; KK B = 5,08%



Tabel Lampiran 12.a. Hasil pengamatan rata-rata presentase polong hampa

| Mikroba penambat Nitrogen (f)      | Mikroba pelarut fosfat (p)            | Kelompok |       |       | Total  | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|--------|-----------|
|                                    |                                       | 1        | 2     | 3     |        |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 4.48     | 3.52  | 1.72  | 9.7201 | 3.24      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 4.00     | 0.62  | 5.06  | 9.6823 | 3.23      |
|                                    | <i>P. aeruginosa</i> (p3)             | 4.40     | 0.60  | 2.15  | 7.1552 | 2.39      |
| Sub total                          |                                       | 12.88    | 4.744 | 8.931 | 26.558 |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 4.52     | 4.37  | 4.85  | 13.745 | 4.58      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 2.01     | 3.92  | 3.25  | 9.184  | 3.06      |
|                                    | <i>P. aeruginosa</i> (p3)             | 2.82     | 1.95  | 5.57  | 10.34  | 3.45      |
| Sub total                          |                                       | 9.349    | 10.24 | 13.68 | 33.269 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 2.17     | 1.06  | 1.19  | 4.4282 | 1.48      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 2.08     | 0.64  | 7.09  | 9.8103 | 3.27      |
|                                    | <i>P. aeruginosa</i> (p3)             | 3.07     | 2.43  | 3.74  | 9.2491 | 3.08      |
| Sub total                          |                                       | 7.329    | 4.133 | 12.03 | 23.488 |           |
| Total                              |                                       | 29.56    | 19.12 | 34.63 | 83.314 |           |

Tabel Lampiran 12.b. Sidik ragam rata-rata presentase polong hampa

| SK          | DB | JK    | KT   | F.HITUNG |    | F.TABEL <sub>0,1</sub> |
|-------------|----|-------|------|----------|----|------------------------|
| KELOMPOK    | 2  | 13.91 | 6.95 | 2.50     | tn | 4.3246                 |
| Petak Utama | 2  | 5.56  | 2.78 | 1.00     | tn | 4.3246                 |
| ACAK (A)    | 4  | 11.13 | 2.78 |          |    |                        |
| Anak Petak  | 2  | 0.21  | 0.10 | 0.04     | tn | 2.8068                 |
| INTERAKSI   | 4  | 10.82 | 2.70 | 1.06     | tn | 2.4801                 |
| ACAK (B)    | 12 | 30.65 | 2.55 |          |    |                        |
| TOTAL       | 26 | 72.27 |      |          |    |                        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
 KK A = 27,50%; KK B = 28,38%



Tabel Lampiran 13.a. Hasil pengamatan rata-rata bobot biji per tanaman

| Mikroba penambat Nitrogen<br>(f)   | Mikroba pelarut fosfat<br>(p)         | Kelompok |       |       | Total  | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|--------|-----------|
|                                    |                                       | 1        | 2     | 3     |        |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 10.48    | 14.55 | 12.71 | 37.74  | 12.58     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 10.12    | 12.73 | 10.86 | 33.71  | 11.24     |
|                                    | <i>P. aeruginosa</i> (p3)             | 11.82    | 11.07 | 13.39 | 36.28  | 12.09     |
| Sub total                          |                                       | 32.42    | 38.35 | 36.96 | 107.73 |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 12.65    | 10.03 | 9.46  | 32.14  | 10.71     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 11.82    | 12.28 | 10.9  | 35     | 11.67     |
|                                    | <i>P. aeruginosa</i> (p3)             | 12.02    | 15.49 | 13.97 | 41.48  | 13.83     |
| Sub total                          |                                       | 36.49    | 37.8  | 34.33 | 108.62 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 12.32    | 10.5  | 12.87 | 35.69  | 11.90     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 12.64    | 13.27 | 9.57  | 35.48  | 11.83     |
|                                    | <i>P. aeruginosa</i> (p3)             | 13.13    | 10.79 | 12.04 | 35.96  | 11.99     |
| Sub total                          |                                       | 38.09    | 34.56 | 34.48 | 107.13 |           |
| Total                              |                                       | 107      | 110.7 | 105.8 | 323.48 |           |

Tabel Lampiran 13.b. Sidik ragam rata-rata bobot biji per tanaman

| SK          | DB | JK    | KT   | F.HITUNG |    | F.TABEL <sub>0,1</sub> |
|-------------|----|-------|------|----------|----|------------------------|
| KELOMPOK    | 2  | 1.47  | 0.73 | 0.30     | tn | 4.3246                 |
| Petak Utama | 2  | 0.12  | 0.06 | 0.03     | tn | 4.3246                 |
| ACAK (A)    | 4  | 9.82  | 2.46 |          |    |                        |
| Anak Petak  | 2  | 5.89  | 2.95 | 1.18     | tn | 2.8068                 |
| INTERAKSI   | 4  | 12.19 | 3.05 | 1.22     | tn | 2.4801                 |
| ACAK (B)    | 12 | 29.92 | 2.49 |          |    |                        |
| TOTAL       | 26 | 59.42 |      |          |    |                        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
 KK A = 13,08%; KK B = 13,18%



Tabel Lampiran 14.a. Hasil pengamatan rata-rata bobot 100 biji

| Mikroba penambat Nitrogen<br>(f)      | Mikroba pelarut fosfat<br>(p)         | Kelompok |       |       | Total  | Rata-rata |
|---------------------------------------|---------------------------------------|----------|-------|-------|--------|-----------|
|                                       |                                       | 1        | 2     | 3     |        |           |
| <i>Azotobacter venilandii</i><br>(f1) | <i>Bacillus cereus</i> (p1)           | 14.6     | 15.99 | 17.43 | 48.02  | 16.01     |
|                                       | <i>Bacillus sp.</i> (indigenous) (p2) | 15.39    | 16.18 | 18.34 | 49.91  | 16.64     |
|                                       | <i>P. aeruginosa</i> (p3)             | 16.24    | 17.45 | 16.28 | 49.97  | 16.66     |
| Sub total                             |                                       | 46.23    | 49.62 | 52.05 | 147.9  |           |
| <i>Streptomyces sp.</i><br>(f2)       | <i>Bacillus cereus</i> (p1)           | 16.71    | 16.02 | 16.46 | 49.19  | 16.40     |
|                                       | <i>Bacillus sp.</i> (indigenous) (p2) | 16.03    | 17.88 | 17.14 | 51.05  | 17.02     |
|                                       | <i>P. aeruginosa</i> (p3)             | 17.83    | 17.36 | 18.38 | 53.57  | 17.86     |
| Sub total                             |                                       | 50.57    | 51.26 | 51.98 | 153.81 |           |
| <i>Bacillus subtilis</i><br>(f3)      | <i>Bacillus cereus</i> (p1)           | 15.97    | 15.66 | 17.29 | 48.92  | 16.31     |
|                                       | <i>Bacillus sp.</i> (indigenous) (p2) | 16.29    | 15.29 | 16.76 | 48.34  | 16.11     |
|                                       | <i>P. aeruginosa</i> (p3)             | 17.22    | 16.21 | 17.46 | 50.89  | 16.96     |
| Sub total                             |                                       | 49.48    | 47.16 | 51.51 | 148.15 |           |
| Total                                 |                                       | 146.3    | 148   | 155.5 | 449.86 |           |

Tabel Lampiran 14.b. Sidik ragam rata-rata bobot 100 biji

| SK          | DB | JK    | KT   | F.HITUNG |    | F.TABEL <sub>0,1</sub> |
|-------------|----|-------|------|----------|----|------------------------|
| KELOMPOK    | 2  | 5.37  | 2.69 | 2.82     | -  | 4.3246                 |
| Petak Utama | 2  | 2.48  | 1.24 | 1.30     | tn | 4.3246                 |
| ACAK (A)    | 4  | 3.81  | 0.95 |          |    |                        |
| Anak Petak  | 2  | 3.90  | 1.95 | 3.64     | *  | 2.8068                 |
| INTERAKSI   | 4  | 1.33  | 0.33 | 0.62     | tn | 2.4801                 |
| ACAK (B)    | 12 | 6.43  | 0.54 |          |    |                        |
| TOTAL       | 26 | 23.33 |      |          |    |                        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
 KK A = 5,85%; KK B = 4,39%



Tabel Lampiran 15.a. Hasil pengamatan rata-rata bobot biji per petak

| Mikroba penambat Nitrogen<br>(f)   | Mikroba pelarut fosfat<br>(p)         | Kelompok |        |        | Total  | Rata-rata |
|------------------------------------|---------------------------------------|----------|--------|--------|--------|-----------|
|                                    |                                       | 1        | 2      | 3      |        |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 196.47   | 204.26 | 182.4  | 583.13 | 194.38    |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 170.68   | 185.54 | 169.13 | 525.35 | 175.12    |
|                                    | <i>P. aeruginosa</i> (p3)             | 186.86   | 165.36 | 192.27 | 544.49 | 181.50    |
| Sub total                          |                                       | 554      | 555.2  | 543.8  | 1653   |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 183.6    | 146.85 | 152.18 | 482.63 | 160.88    |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 208.39   | 188.04 | 167.06 | 563.49 | 187.83    |
|                                    | <i>P. aeruginosa</i> (p3)             | 205.87   | 227.63 | 211.27 | 644.77 | 214.92    |
| Sub total                          |                                       | 597.9    | 562.5  | 530.5  | 1690.9 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 171.38   | 160.86 | 171.49 | 503.73 | 167.91    |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 175.89   | 188.46 | 158.07 | 522.42 | 174.14    |
|                                    | <i>P. aeruginosa</i> (p3)             | 172.11   | 172.77 | 179.01 | 523.89 | 174.63    |
| Sub total                          |                                       | 519.4    | 522.1  | 508.6  | 1550   |           |
| Total                              |                                       | 146.3    | 148    | 155.5  | 449.86 |           |

Tabel Lampiran 15.b. Sidik ragam rata-rata bobot biji per petak

| SK          | DB | JK      | KT     | F.HITUNG | F.TABEL <sub>0,1</sub> |        |
|-------------|----|---------|--------|----------|------------------------|--------|
| KELOMPOK    | 2  | 445.80  | 222.90 | 2.40     | tn                     | 4.3246 |
| Petak Utama | 2  | 1180.42 | 590.21 | 6.36     | *                      | 4.3246 |
| ACAK (A)    | 4  | 370.99  | 92.75  |          |                        |        |
| Anak Petak  | 2  | 1213.50 | 606.75 | 2.95     | *                      | 2.8068 |
| INTERAKSI   | 4  | 3829.83 | 957.46 | 4.66     | **                     | 2.4801 |
| ACAK (B)    | 12 | 2467.67 | 205.64 |          |                        |        |
| TOTAL       | 26 | 9508.21 |        |          |                        |        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
 KK A = 5,31%; KK B = 7,91%



Tabel Lampiran 16.a. Hasil pengamatan rata-rata bobot biji per hektar

| Mikroba penambat Nitrogen<br>(f)   | Mikroba pelarut fosfat<br>(p)         | Kelompok |       |       | Total | Rata-rata |
|------------------------------------|---------------------------------------|----------|-------|-------|-------|-----------|
|                                    |                                       | 1        | 2     | 3     |       |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 1.96     | 2.04  | 1.82  | 5.83  | 1.94      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 1.71     | 1.86  | 1.69  | 5.25  | 1.75      |
|                                    | <i>P. aeruginosa</i> (p3)             | 1.87     | 1.65  | 1.92  | 5.44  | 1.81      |
| Sub total                          |                                       | 5.54     | 5.55  | 5.44  | 16.53 |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 1.84     | 1.47  | 1.52  | 4.83  | 1.61      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 2.08     | 1.88  | 1.67  | 5.63  | 1.88      |
|                                    | <i>P. aeruginosa</i> (p3)             | 2.06     | 2.28  | 2.11  | 6.45  | 2.15      |
| Sub total                          |                                       | 5.98     | 5.63  | 5.31  | 16.91 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 1.71     | 1.61  | 1.71  | 5.04  | 1.68      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 1.76     | 1.88  | 1.58  | 5.22  | 1.74      |
|                                    | <i>P. aeruginosa</i> (p3)             | 1.72     | 1.73  | 1.79  | 5.24  | 1.75      |
| Sub total                          |                                       | 5.19     | 5.22  | 5.09  | 15.50 |           |
| Total                              |                                       | 16.71    | 16.40 | 15.83 | 48.94 |           |

Tabel Lampiran 16.b. Sidik ragam rata-rata bobot biji per hektar

| SK          | DB | JK   | KT   | F.HITUNG |    | F.TABEL <sub>0,1</sub> |
|-------------|----|------|------|----------|----|------------------------|
| KELOMPOK    | 2  | 0.04 | 0.02 | 2.40     | tn | 4.3246                 |
| Petak Utama | 2  | 0.12 | 0.06 | 6.36     | *  | 4.3246                 |
| ACAK (A)    | 4  | 0.04 | 0.01 |          |    |                        |
| Anak Petak  | 2  | 0.12 | 0.06 | 2.95     | *  | 2.8068                 |
| INTERAKSI   | 4  | 0.38 | 0.10 | 4.66     | ** | 2.4801                 |
| ACAK (B)    | 12 | 0.25 | 0.02 |          |    |                        |
| TOTAL       | 26 | 0.95 |      |          |    |                        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
 KK A = 5,31%; KK B = 7,91%



Tabel Lampiran 17.a. Hasil pengamatan rata-rata indeks panen

| Mikroba penambat Nitrogen<br>(f)   | Mikroba pelarut fosfat<br>(p)         | Kelompok |      |      | Total | Rata-rata |
|------------------------------------|---------------------------------------|----------|------|------|-------|-----------|
|                                    |                                       | 1        | 2    | 3    |       |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 0.39     | 0.42 | 0.37 | 1.18  | 0.39      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.49     | 0.47 | 0.54 | 1.50  | 0.50      |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.45     | 0.41 | 0.46 | 1.32  | 0.44      |
| Sub total                          |                                       | 1.33     | 1.30 | 1.37 | 4.00  |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 0.45     | 0.36 | 0.39 | 1.21  | 0.40      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.45     | 0.39 | 0.38 | 1.22  | 0.41      |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.42     | 0.44 | 0.43 | 1.29  | 0.43      |
| Sub total                          |                                       | 1.32     | 1.20 | 1.20 | 3.72  |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 0.45     | 0.41 | 0.42 | 1.28  | 0.43      |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 0.40     | 0.39 | 0.45 | 1.25  | 0.42      |
|                                    | <i>P. aeruginosa</i> (p3)             | 0.46     | 0.46 | 0.44 | 1.36  | 0.45      |
| Sub total                          |                                       | 1.32     | 1.27 | 1.31 | 3.89  |           |
| Total                              |                                       | 3.96     | 3.77 | 3.88 | 11.61 |           |

Tabel Lampiran 17.b. Sidik ragam rata-rata indeks panen

| SK          | DB | JK      | KT      | F.HITUNG |    | F.TABEL <sub>0,1</sub> |
|-------------|----|---------|---------|----------|----|------------------------|
| KELOMPOK    | 2  | 0.00218 | 0.00109 | 2.02     | tn | 4.3246                 |
| Petak Utama | 2  | 0.00466 | 0.00233 | 4.33     | *  | 4.3246                 |
| ACAK (A)    | 4  | 0.00215 | 0.00054 |          |    |                        |
| Anak Petak  | 2  | 0.00664 | 0.00332 | 3.85     | *  | 2.8068                 |
| INTERAKSI   | 4  | 0.01461 | 0.00365 | 4.24     | ** | 2.4801                 |
| ACAK (B)    | 12 | 0.01035 | 0.00086 |          |    |                        |
| TOTAL       | 26 | 0.04060 |         |          |    |                        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
 KK A = 5,39%; KK B = 6,83%



Tabel Lampiran 18.a. Hasil pengamatan rata-rata kadar protein

| Mikroba penambat Nitrogen<br>(f)   | Mikroba pelarut fosfat<br>(p)         | Kelompok |        |        | Total  | Rata-rata |
|------------------------------------|---------------------------------------|----------|--------|--------|--------|-----------|
|                                    |                                       | 1        | 2      | 3      |        |           |
| <i>Azotobacter venilandii</i> (f1) | <i>Bacillus cereus</i> (p1)           | 19.00    | 19.05  | 18.63  | 56.68  | 18.89     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 17.24    | 18.31  | 17.74  | 53.29  | 17.76     |
|                                    | <i>P. aeruginosa</i> (p3)             | 18.30    | 19.04  | 18.39  | 55.73  | 18.58     |
| Sub total                          |                                       | 54.54    | 56.40  | 54.76  | 165.70 |           |
| <i>Streptomyces sp.</i> (f2)       | <i>Bacillus cereus</i> (p1)           | 17.65    | 16.41  | 17.74  | 51.80  | 17.27     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 19.23    | 19.52  | 19.81  | 58.56  | 19.52     |
|                                    | <i>P. aeruginosa</i> (p3)             | 17.90    | 18.10  | 18.01  | 54.01  | 18.00     |
| Sub total                          |                                       | 54.78    | 54.03  | 55.56  | 164.37 |           |
| <i>Bacillus subtilis</i> (f3)      | <i>Bacillus cereus</i> (p1)           | 18.87    | 17.11  | 17.72  | 53.70  | 17.90     |
|                                    | <i>Bacillus sp.</i> (indigenous) (p2) | 17.18    | 18.21  | 17.92  | 53.31  | 17.77     |
|                                    | <i>P. aeruginosa</i> (p3)             | 17.71    | 18.26  | 17.70  | 53.67  | 17.89     |
| Sub total                          |                                       | 53.76    | 53.58  | 53.34  | 160.68 |           |
| Total                              |                                       | 163.08   | 164.01 | 163.66 | 490.75 |           |

Tabel Lampiran 18.b. Sidik ragam rata-rata kadar protein

| SK          | DB | JK       | KT      | F.HITUNG |    | F.TABEL <sub>0.1</sub> |
|-------------|----|----------|---------|----------|----|------------------------|
| KELOMPOK    | 2  | 0.04903  | 0.02451 | 0.09     | tn | 4.3246                 |
| Petak Utama | 2  | 1.50316  | 0.75158 | 2.84     | tn | 4.3246                 |
| ACAK (A)    | 4  | 1.05939  | 0.26485 |          |    |                        |
| Anak Petak  | 2  | 0.49836  | 0.24918 | 0.84     | tn | 2.8068                 |
| INTERAKSI   | 4  | 9.49219  | 2.37305 | 8.01     | ** | 2.4801                 |
| ACAK (B)    | 12 | 3.55631  | 0.29636 |          |    |                        |
| TOTAL       | 26 | 16.15845 |         |          |    |                        |

Ket. \* = nyata; \*\* = sangat nyata; tn = tidak nyata  
 KK A = 2,83%; KK B = 2,99%





Tabel Lampiran 19. Rekapitulasi hasil analisis sidik ragam pengaruh mikroba penambat nitrogen dengan mikroba pelarut fosfat pada semua parameter pengamatan.

| No. | Pengamatan   | Pengaruh |     |                   |
|-----|--|----------|-----|-------------------|
|     |  | (f)      | (p) | Interaksi (f x p) |
| 1.  | LTT (g m <sup>2</sup> minggu <sup>-1</sup> ) periode 1 (4-5 MST)   | -        | -   | ✓                 |
| 2.  | LTT (g m <sup>2</sup> minggu <sup>-1</sup> ) periode 2 (5-6 MST)   | -        | -   | -                 |
| 3.  | LTT (g m <sup>2</sup> minggu <sup>-1</sup> ) periode 3 (6-7 MST)   | ✓        | -   | -                 |
| 4.  | LAB (g cm <sup>-2</sup> minggu <sup>-1</sup> ) periode 1 (4-5 MST) | -        | -   | ✓                 |
| 5.  | LAB (g cm <sup>-2</sup> minggu <sup>-1</sup> ) periode 2 (5-6 MST) | -        | -   | -                 |
| 6.  | LAB (g cm <sup>-2</sup> minggu <sup>-1</sup> ) periode 3 (6-7 MST) | ✓        | -   | -                 |
| 7.  | Jumlah cabang produktif (cabang)                                   | -        | ✓   | ✓                 |
| 8.  | Presentase polong per tanaman (polong)                             | ✓        | -   | -                 |
| 9.  | Presentase polong berisi (persen)                                  | -        | -   | -                 |
| 10. | presentase polong hampa (persen)                                   | -        | -   | -                 |
| 11. | Bobot biji per tanaman (g)   | -        | -   | -                 |
| 12. | Bobot 100 biji (g)   | -        | ✓   | -                 |
| 13. | Bobot biji per petak (g)   | ✓        | ✓   | ✓                 |
| 14. | Bobot biji per hektar (ton)  | ✓        | ✓   | ✓                 |
| 15. | Indeks panen   | ✓        | ✓   | ✓                 |
| 16. | Kadar protein (%)  | -        | -   | ✓                 |

Ket. ✓ = berpengaruh nyata; (-) = tidak berpengaruh nyata



Tabel Lampiran 20. Rekapitulasi kombinasi perlakuan terbaik mikroba penambat nitrogen dengan mikroba pelarut fosfat pada semua parameter pengamatan.

|   | LTT | LAB | Jumlah cabang produktif | Presentase polong per tanaman | Presentase polong berisi | Presentase polong hampa | Bobot biji per tanaman | Bobot 100 biji | Bobot biji perpetak | Bobot biji per hektar | Indeks panen | Kadar protein |
|---|-----|-----|-------------------------|-------------------------------|--------------------------|-------------------------|------------------------|----------------|---------------------|-----------------------|--------------|---------------|
| <i>Azotobacter vinilandii</i> dengan <i>Bacillus cereus</i>           | ✓   |     |                         |                               |                          |                         |                        |                |                     |                       |              |               |
| <i>Azotobacter vinilandii</i> dengan <i>Bacillus</i> sp. (indigenous) |     |     |                         |                               |                          |                         |                        |                |                     |                       | ✓            |               |
| <i>Azotobacter vinilandii</i> dengan <i>Pseudomonas aeruginosa</i>    |     |     |                         |                               |                          |                         |                        |                |                     |                       |              |               |
| <i>Streptomyces</i> sp. dengan <i>Bacillus cereus</i>                 |     | ✓   |                         |                               |                          |                         |                        |                |                     |                       |              |               |
| <i>Streptomyces</i> sp. dengan <i>Bacillus</i> sp. (indigenous)       |     |     |                         |                               |                          |                         |                        |                |                     |                       |              | ✓             |
| <i>Streptomyces</i> sp. dengan <i>Pseudomonas aeruginosa</i>          |     |     | ✓                       | ✓                             |                          |                         | ✓                      | ✓              | ✓                   | ✓                     |              |               |
| <i>Bacillus subtilis</i> dengan <i>Bacillus cereus</i>                |     |     |                         |                               | ✓                        | ✓                       |                        |                |                     |                       |              |               |
| <i>Bacillus subtilis</i> dengan <i>Bacillus</i> sp. (indigenous)      |     |     |                         |                               |                          |                         |                        |                |                     |                       |              |               |
| <i>Bacillus subtilis</i> dengan <i>Pseudomonas aeruginosa</i>         |     |     |                         |                               |                          |                         |                        |                |                     |                       |              |               |

