

## DAFTAR PUSTAKA

- Agustina, L. 1990. *Dasar Nutrisi Dan Tanaman*. Rineka Cipta. Jakarta
- Amaru, Kharistya. 2008. Limbah Industri Kelapa Sawit [www.geocities.com/kharistya\\_amaru/blog/limbah-sawit.html](http://www.geocities.com/kharistya_amaru/blog/limbah-sawit.html)-85k-.
- Arsyad, S. 2012. *Konservasi Tanah dan Air*. Bogor: IPB Press. Edisi Kedua
- Budianta, Dedik 2005. *Potensi Limbah Cair Pabrik Kelapa Sawit Sebagai Sumber Hara Untuk Tanaman Perkebunan (Potential of Palm Oil Mill Effluent for Organic Fertilizer on Plantation Plant)*. *Dinamika Pertanian*, XX
- Darnokocit Anwar, 2008. Perubahan Sifat Kimia Tandan Kosong kelapa sawit yang di fermentasi dengan EM4 pada dosis dan lama pemeraman yang berbeda. *Jurnal Agroteknologi*.
- Darmosarkoroet., *al*, 2005. *Peningkatan Efektifitas Pemupukan Kelapa Sawit*. Seri Buku Saku 03. PPKS. Medan.
- Deno O., C. Ezward dan A. Haitami. 2017. Pengaruh Berbagai Dosis Kompos Solid Plus (KOSPLUS) dalam Memperbaiki Sifat Kimia Tanah Ultisol di Kabupaten Kuantan Singingi. *Jurnal Agroqua*.
- Departemen Pertanian, 2006. *Pedoman Pengolahan Limbah Industri Kelapa Sawit*, Direktorat Pengolahan Hasil Pertanian, Jakarta
- Departemen Pertanian. 2006. *Pedoman Pengelolaan Limbah Industri Kelapa Sawit*. Subdit Pengelolaan Lingkungan Ditjen PPHP. Jakarta.
- Duaja, M.D., Kartika, E. Buhaira dan Gusniwati. 2016. Pemberdayaan Masyarakat KKN-PPM Dalam Penerapan Metode Sri Organik Berbasis Teknologi Bioporasi (*Trichoporiza Plus*) dan MOL Untuk

- Meningkatkan Produksi Padi. Prosiding Sem. Nas. PKM-CSR. Uni. Bung Hatta. Padang.
- Fauziet *al* ,2006. Kelapa Sawit. Yogyakarta : Kanisius
- John Wiley and Sons. New York. Tarigan. 1992. Pemanfaatan Limbah Pabrik Kelapa Sawit Sebagai Pengganti Pupuk Kandang Sapi Pada Tanaman Kubis. Buletin Warta Penelitian dan Pengembangan Pertanian. Badan Penelitian dan Pengembangan Pertanian. Jakarta.
- Lubis, R.E. dan Widanarko, Agus. 2011. *Buku Pintar Kelapa Sawit*. Opi, Nofiandi; Penyunting. Agro Media Pustaka. Jakarta.
- Mukherjee, S. and Mitra, A. (2009) Health Effects of Palm Oil. Journal of Human Ecology
- Mandiri, 2012. Manual Pelatihan Teknologi Energi Terbarukan, Jakarta.
- Nasution S. H., H. Chairani dan G. Jasmani. 2014. Pertumbuhan Bibit Kelapa Sawit (*Elaeis guineensis* Jacq) pada Berbagai Perbandingan Media Tanam Solid Decanter dan Tandan Kosong Kelapa Sawit Pada Sistem Single Stage
- Nasrul., T. Maimun. 2009. Pengaruh Penambahan jamur Pelapuk Putih (*White Rot Fungi*) pada Proses Pengomposan Tandan Kosong Kelapa Sawit. Jurnal Rekayasa Kimia dan Lingkungan.
- Nicolaas . B. T. dkk. 2016. Pedoman Teknis Agronomi Perkebunan Kelapa sawit. Eagle High Plantations. Jakarta.
- Republik Indonesia. Undang – Undang Republik Indonesia Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup. Lembaran Negara Republik Indonesia Tahun 2009 Nomor 140. Jakarta Sekretariat Negara.
- Risza, S., 1994. Upaya Peningkatan Produktivitas Kelapa Sawit. Kanisius. Yogyakarta.
- Sarwono, E. 2008. Pemanfaatan Janjang Kosong Sebagai Substitusi Pupuk Tanaman Kelapa Sawit. *Jurnal APLIKA*.
- Sunarko, 2007. Petunjuk Praktis Budidaya dan Pengelolaan Kelapa Sawit.

Jakarta :Agro Media Pustaka.

Suryanto. 2008. Tinjauan Terhadap Perkembangan Penelitian Pengolahan Limbah Padat Pabrik Kelapa Sawit. Jurnal Teknologi Lingkungan. Edisi Khusus.

Sitepu, Syahputra Edy & Faulina. 2011. *Profesional Public Relations*. Medan: USU Press

Syukri, M Nur, 2014. Penggunaan Limbah Padat Kelapa Sawit Untuk Menghasilkan Tenaga Listrik Pada Existing Boiler. Jakarta.

Widiastuti dan Panji, T. 2007. Pemanfaatan Tandan Kosong Kelapa Sawit Sisa Jamur Merang (*Volvariavolvacea*) (TKSJ) sebagai Pupuk Organik pada Pembibitan Kelapa Sawit. Menara Perkebunan. Balai Penelitian Bioteknologi Perkebunan Indonesia, Bogor.

Winarna et al., 2007. Pemupukan Kelapa Sawit. PPKS Medan. Medan

Yuniza, Y. 2015. Pengaruh Pemberian Kompos Decanter Solid dalam Media Tanam terhadap Pertumbuhan Bibit Kelapa Sawit (*Elaeis guineensis* Jacq.) di Pembibitan Utama. Program Studi Agroekoteknologi Fakultas Pertanian Universitas Jambi. Jambi.

LAMPIRAN 1.



Pengukuran Alat Aplikasi Janjang Kosong di Kebun PGRE

## Lampiran 2



Kalibrasi Alat Aplikasi Solid dilapngan

### Lampiran 3



Pengarahan Karyawan Aplikasi Janjang Kosong dan Solid di Lapangan

#### Lampiran 4



Pengarahan Staff Mengenai Dosis dan Cara Aplikasi Jangkos dan Solid di Lapangan.

## Lampiran 5



Kalibrasi Alat Aplikasi Solid

## Lampiran 6



Kalibrasi Alat Aplikasi Jangkos

## Lampiran 7

Tabel 4.1.5. Produktivitas kelapa sawit dengan aplikasi jangkos dan solid per blok

| Blok         | Luas       | Pkk           | SPH        | YPH (ton/ha/thn) |             |             |             |             |               |
|--------------|------------|---------------|------------|------------------|-------------|-------------|-------------|-------------|---------------|
|              |            |               |            | Act<br>2017      | Act<br>2018 | Act<br>2019 | Act<br>2020 | Act<br>2021 | Rata-<br>rata |
| C0001        | 28,56      | 3.870         | 135        | 14               | 16          | 28          | 28          | 29          | 23            |
| C0002        | 16,76      | 2.403         | 143        | 19               | 41          | 39          | 34          | 33          | 33            |
| C0003        | 13,13      | 1.859         | 142        | 24               | 40          | 57          | 23          | 33          | 36            |
| B0013        | 18,82      | 2.620         | 139        | 17               | 24          | 25          | 22          | 24          | 22            |
| A0017        | 24,29      | 3.083         | 127        | 17               | 25          | 28          | 24          | 23          | 23            |
| A0018        | 22,47      | 2.861         | 127        | 17               | 38          | 30          | 27          | 25          | 27            |
| A0019        | 20,28      | 2.744         | 135        | 14               | 21          | 28          | 21          | 20          | 21            |
| B0020        | 26,81      | 3.421         | 128        | 17               | 19          | 24          | 23          | 19          | 20            |
| A0014        | 20,47      | 2.974         | 145        | 18               | 26          | 35          | 22          | 18          | 24            |
| A0015        | 37,89      | 4.099         | 108        | 16               | 24          | 23          | 21          | 19          | 20            |
| B0018        | 30,38      | 3.726         | 123        | 18               | 21          | 24          | 23          | 19          | 21            |
| B0017        | 31,21      | 3.871         | 124        | 18               | 19          | 24          | 20          | 18          | 20            |
| B0016        | 30,76      | 3.603         | 117        | 18               | 20          | 23          | 19          | 18          | 20            |
| B0015        | 32,73      | 4.107         | 125        | 17               | 19          | 22          | 18          | 18          | 19            |
| B0014        | 29,55      | 4.209         | 142        | 21               | 26          | 31          | 25          | 24          | 25            |
| C0021        | 31,80      | 4.141         | 130        | 18               | 18          | 26          | 23          | 20          | 21            |
| C0022        | 24,19      | 3.525         | 146        | 21               | 21          | 28          | 24          | 22          | 23            |
| C0023        | 25,40      | 3.484         | 137        | 21               | 22          | 27          | 24          | 22          | 23            |
| D0022        | 22,45      | 3.205         | 143        | 16               | 18          | 21          | 20          | 19          | 19            |
| B0022        | 12,60      | 1.667         | 132        | 20               | 25          | 27          | 27          | 22          | 24            |
| D0020        | 24,39      | 3.032         | 124        | 17               | 21          | 23          | 21          | 19          | 20            |
| D0019        | 31,86      | 3.969         | 125        | 17               | 20          | 22          | 20          | 18          | 19            |
| D0018        | 26,92      | 3.909         | 145        | 18               | 20          | 24          | 21          | 19          | 20            |
| C0020        | 25,86      | 3.602         | 139        | 17               | 17          | 22          | 23          | 20          | 20            |
| D0015        | 26,37      | 3.341         | 127        | 18               | 18          | 21          | 18          | 19          | 19            |
| D0014        | 28,28      | 4.119         | 146        | 20               | 19          | 23          | 21          | 20          | 21            |
| D0013        | 26,76      | 3.843         | 144        | 20               | 20          | 22          | 19          | 18          | 20            |
| <b>TOTAL</b> | <b>614</b> | <b>80.535</b> | <b>133</b> | <b>18</b>        | <b>23</b>   | <b>27</b>   | <b>23</b>   | <b>21</b>   | <b>22</b>     |

## Lampiran 8

Tabel 4.1.5. Produksi kelapa sawit dengan aplikasi by product (Jangkos dan solid) 5 tahun terakhir.

| Uraian                  | Tahun Aplikasi |           |           |           |           |
|-------------------------|----------------|-----------|-----------|-----------|-----------|
|                         | 2017           | 2018      | 2019      | 2020      | 2021      |
| Yield (ton/ha/thn)      | 18             | 22        | 26        | 22        | 21        |
| Rotasi/ bulan           | <b>46</b>      | <b>47</b> | <b>47</b> | <b>47</b> | <b>47</b> |
| Berat jangang rata rata | 8              | 10        | 11        | 11        | 12        |
| Janjang/pokok           | 15             | 14        | 16        | 13        | 11        |
| Janjang/ha/rotasi       | 46             | 41        | 46        | 37        | 32        |
| Janjang/ha/bulan        | 2145           | 2112      | 2410      | 1903      | 1612      |
| Janjang/ha/tahun        | 2145           | 2112      | 2410      | 1903      | 1612      |
| Ton/ha/rotasi           | 0,35           | 0,40      | 0,49      | 0,42      | 0,39      |
| Tonase/tahun            | 12485          | 14630     | 17799     | 15332     | 14309     |
| Janjang Panen / thn     | 1.390.847      | 1.362.340 | 1.439.905 | 1.227.950 | 1.059.770 |

## Lampiran 9

Tabel 4.1.6. Produktivitas kelapa sawit dengan aplikasi jangkos saja.

| Blok  | Luas          | Pkk           | SPH | YPH (ton/ha/thn) |           |           |           |           |           |
|-------|---------------|---------------|-----|------------------|-----------|-----------|-----------|-----------|-----------|
|       |               |               |     | Act 2017         | Act 2018  | Act 2019  | Act 2020  | Act 2021  | Rata-rata |
| B0019 | 34,16         | 4.169         | 122 | 15               | 18        | 22        | 18        | 18        | 18        |
| D0023 | 25,45         | 3.372         | 132 | 15               | 20        | 21        | 19        | 18        | 19        |
| A0016 | 24,52         | 3.237         | 132 | 18               | 21        | 20        | 17        | 17        | 19        |
| B0023 | 18,13         | 2.220         | 122 | 15               | 17        | 20        | 17        | 18        | 17        |
| D0017 | 26,55         | 3.810         | 143 | 18               | 19        | 20        | 20        | 18        | 19        |
| B0021 | 29,89         | 3.957         | 132 | 18               | 18        | 23        | 20        | 19        | 20        |
| C0019 | 32,86         | 4.297         | 131 | 15               | 16        | 18        | 18        | 16        | 16        |
| D0021 | 29,56         | 3.816         | 129 | 14               | 17        | 19        | 18        | 17        | 17        |
| C0020 | 25,86         | 3.602         | 139 | 17               | 17        | 22        | 23        | 20        | 20        |
|       | <b>246,99</b> | <b>32.480</b> |     | <b>16</b>        | <b>18</b> | <b>21</b> | <b>19</b> | <b>18</b> | <b>18</b> |

Lampiran 10

Tabel 4.1.7. Produksi kelapa sawit dengan aplikasi Jangkos saja

| Uraian                  | Tahun Aplikasi |           |           |           |           |
|-------------------------|----------------|-----------|-----------|-----------|-----------|
|                         | 2017           | 2018      | 2019      | 2020      | 2021      |
| Yield (ton/ha/thn)      | 17             | 20        | 24        | 20        | 19        |
| Rotasi/ bulan           | <b>47</b>      | <b>47</b> | <b>47</b> | <b>47</b> | <b>47</b> |
| Berat janjang rata rata | 8              | 9         | 10        | 10        | 11        |
| Janjang/pokok           | 15             | 14        | 15        | 13        | 11        |
| Janjang/ha/rotasi       | 48             | 41        | 43        | 37        | 31        |
| Janjang/ha/bulan        | 189            | 160       | 169       | 145       | 123       |
| Janjang/ha/tahun        | 2264           | 2199      | 2339      | 2021      | 1688      |
| Ton/ha/rotasi           | 0,32           | 0,38      | 0,43      | 0,38      | 0,35      |
| Ton/tahun               | 3385           | 4041      | 4624      | 4058      | 3709      |
| Janjang Panen / thn     | 452.845        | 438.761   | 462.484   | 398.756   | 337.336   |

Lampiran 11

Tabel 4.1.11 by product . Produksi TBS pada blok tanpa aplikasi

| TAHUN<br>TANAM | BLOK  | LUAS  | YIELD (ton/ha/thn) |      |      |      |      | Rata-<br>rata |
|----------------|-------|-------|--------------------|------|------|------|------|---------------|
|                |       |       | 2017               | 2018 | 2019 | 2020 | 2021 |               |
| 2006           | A0001 | 13,78 | 15                 | 17   | 17   | 15   | 14   | 16            |
| 2006           | B0002 | 43,06 | 15                 | 15   | 16   | 14   | 14   | 15            |
| 2009           | D0001 | 25,68 | 15                 | 13   | 16   | 15   | 14   | 15            |
| 2009           | D0002 | 22,37 | 12                 | 14   | 19   | 18   | 15   | 16            |
| 2009           | D0003 | 24,60 | 15                 | 18   | 18   | 19   | 16   | 17            |
| 2009           | D0004 | 30,82 | 14                 | 15   | 19   | 18   | 16   | 16            |
| 2006           | A0013 | 18,55 | 15                 | 17   | 19   | 15   | 14   | 16            |
| 2009           | A0021 | 23,82 | 11                 | 14   | 18   | 16   | 16   | 15            |
| 2006           | A0008 | 16,14 | 16                 | 13   | 13   | 9    | 8    | 12            |
| 2006           | A0011 | 14,87 | 18                 | 18   | 22   | 15   | 13   | 17            |
| 2006           | B0007 | 15,45 | 22                 | 21   | 24   | 17   | 14   | 19            |
| 2006           | B0008 | 24,87 | 16                 | 17   | 19   | 16   | 14   | 17            |
| 2006           | B0009 | 33,56 | 13                 | 13   | 19   | 16   | 15   | 15            |
| 2006           | B0010 | 21,46 | 18                 | 21   | 24   | 16   | 15   | 19            |
| 2006           | B0011 | 18,18 | 15                 | 18   | 22   | 18   | 16   | 18            |
| 2007           | C0005 | 53,79 | 16                 | 18   | 20   | 18   | 16   | 17            |
| 2007           | C0006 | 34,41 | 19                 | 20   | 22   | 19   | 16   | 19            |
| 2007           | C0007 | 31,21 | 18                 | 20   | 23   | 19   | 16   | 19            |
| 2008           | C0008 | 45,31 | 14                 | 17   | 20   | 18   | 16   | 17            |
| 2008           | C0009 | 51,18 | 13                 | 15   | 18   | 18   | 16   | 16            |
| 2008           | D0009 | 29,95 | 18                 | 18   | 20   | 18   | 16   | 18            |
| 2008           | D0010 | 29,76 | 17                 | 20   | 19   | 16   | 14   | 17            |
| 2009           | D0005 | 30,07 | 15                 | 17   | 19   | 16   | 15   | 16            |
| 2009           | D0006 | 30,30 | 16                 | 19   | 21   | 17   | 16   | 18            |
| 2009           | D0007 | 29,75 | 17                 | 19   | 19   | 19   | 17   | 18            |
| 2009           | D0008 | 29,73 | 18                 | 21   | 22   | 20   | 16   | 19            |
| 2008           | D0012 | 30,41 | 18                 | 17   | 19   | 18   | 17   | 18            |
| 2009           | C0017 | 28,30 | 16                 | 16   | 18   | 19   | 16   | 17            |
| 2009           | C0018 | 23,15 | 16                 | 18   | 20   | 20   | 17   | 18            |

|  |  |     |    |    |    |    |    |    |
|--|--|-----|----|----|----|----|----|----|
|  |  | 825 | 16 | 17 | 19 | 17 | 15 | 17 |
|--|--|-----|----|----|----|----|----|----|

Lampiran 12. DMRT areal aplikasi by product (jangkos dan solid ) dan areal yang tidak diaplikasi by product ( jangkos dan solid)

Dependent Variable: Data

| Source          | Type III Sum of Squares | Df | Mean Square | F       | Sig. |
|-----------------|-------------------------|----|-------------|---------|------|
| Corrected Model | 44.667 <sup>a</sup>     | 2  | 22.333      | 4.902   | .055 |
| Intercept       | 3364.000                | 1  | 3364.000    | 738.439 | .000 |
| Perlakuan       | 44.667                  | 2  | 22.333      | 4.902   | .055 |
| Error           | 27.333                  | 6  | 4.556       |         |      |
| Total           | 3436.000                | 9  |             |         |      |
| Corrected Total | 72.000                  | 8  |             |         |      |

a. R Squared = .620 (Adjusted R Squared = .494)

Lampiran 13. Rekap Kuesioner Manajemen Aplikasi Janjang kosong pada kebun Pangarango Estate ( PGRE ).

| No | Variabel Y |    |    |    |    |    |    | Total |
|----|------------|----|----|----|----|----|----|-------|
|    | Y1         | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 |       |
| 1  | 2          | 5  | 4  | 5  | 3  | 4  | 5  | 29    |
| 2  | 5          | 2  | 5  | 5  | 5  | 5  | 4  | 33    |
| 3  | 4          | 5  | 2  | 4  | 4  | 4  | 5  | 31    |
| 4  | 5          | 5  | 2  | 4  | 5  | 5  | 4  | 34    |
| 5  | 4          | 5  | 4  | 2  | 5  | 5  | 4  | 34    |
| 6  | 3          | 4  | 5  | 2  | 5  | 5  | 5  | 35    |
| 7  | 4          | 5  | 4  | 2  | 4  | 5  | 4  | 35    |
| 8  | 4          | 5  | 2  | 5  | 4  | 5  | 5  | 38    |
| 9  | 4          | 5  | 5  | 2  | 5  | 4  | 5  | 39    |
| 10 | 5          | 2  | 3  | 5  | 5  | 4  | 4  | 38    |
| 11 | 3          | 4  | 4  | 4  | 4  | 3  | 3  | 36    |
| 12 | 4          | 5  | 2  | 5  | 5  | 5  | 5  | 43    |
| 13 | 5          | 5  | 5  | 2  | 4  | 4  | 5  | 43    |
| 14 | 4          | 4  | 4  | 2  | 4  | 4  | 4  | 40    |
| 15 | 5          | 5  | 5  | 2  | 5  | 5  | 5  | 47    |
| 16 | 4          | 5  | 5  | 2  | 5  | 5  | 5  | 47    |
| 17 | 5          | 5  | 2  | 2  | 3  | 3  | 5  | 42    |
| 18 | 5          | 4  | 2  | 2  | 4  | 4  | 4  | 43    |
| 19 | 5          | 5  | 5  | 2  | 5  | 5  | 5  | 51    |
| 20 | 5          | 5  | 5  | 5  | 5  | 4  | 4  | 53    |
| 21 | 4          | 4  | 2  | 5  | 5  | 5  | 4  | 50    |
| 22 | 5          | 5  | 5  | 5  | 5  | 5  | 4  | 56    |
| 23 | 4          | 4  | 2  | 4  | 5  | 5  | 5  | 52    |
| 24 | 5          | 5  | 5  | 5  | 5  | 5  | 4  | 58    |
| 25 | 3          | 4  | 2  | 4  | 4  | 4  | 4  | 50    |

Lampiran 14. Rekap Kuesioner Manajemen Aplikasi Janjang kosong pada kebun Pangarango Estate ( PGRE ).

| No | Variabel Y |    |    |    |    |    |    | Total |
|----|------------|----|----|----|----|----|----|-------|
|    | Y1         | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 |       |
| 26 | 4          | 4  | 4  | 4  | 4  | 4  | 4  | 54    |
| 27 | 4          | 5  | 2  | 5  | 4  | 5  | 4  | 56    |
| 28 | 4          | 5  | 5  | 5  | 5  | 5  | 4  | 61    |
| 29 | 5          | 5  | 2  | 5  | 5  | 4  | 4  | 59    |
| 30 | 4          | 4  | 4  | 5  | 5  | 5  | 5  | 62    |
| 31 | 3          | 5  | 2  | 4  | 4  | 5  | 5  | 59    |
| 32 | 4          | 5  | 4  | 2  | 4  | 5  | 4  | 60    |
| 33 | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 68    |
| 34 | 4          | 4  | 4  | 4  | 5  | 5  | 4  | 64    |
| 35 | 5          | 4  | 2  | 4  | 4  | 5  | 5  | 64    |
| 36 | 4          | 4  | 4  | 2  | 5  | 5  | 5  | 65    |
| 37 | 4          | 5  | 5  | 5  | 5  | 5  | 5  | 71    |
| 38 | 5          | 5  | 5  | 5  | 4  | 4  | 4  | 70    |
| 39 | 5          | 5  | 5  | 5  | 5  | 5  | 4  | 73    |
| 40 | 3          | 4  | 4  | 4  | 4  | 5  | 5  | 69    |
| 41 | 4          | 5  | 5  | 4  | 4  | 4  | 4  | 71    |
| 42 | 4          | 5  | 5  | 5  | 5  | 5  | 4  | 75    |
| 43 | 4          | 5  | 5  | 4  | 4  | 4  | 4  | 73    |
| 44 | 5          | 5  | 4  | 4  | 4  | 4  | 5  | 75    |
| 45 | 4          | 4  | 4  | 4  | 5  | 5  | 5  | 76    |
| 46 | 2          | 3  | 4  | 5  | 5  | 5  | 5  | 75    |
| 47 | 1          | 4  | 5  | 3  | 5  | 4  | 4  | 73    |
| 48 | 4          | 4  | 4  | 3  | 3  | 2  | 1  | 69    |
| 49 | 1          | 5  | 5  | 5  | 5  | 5  | 3  | 78    |
| 50 | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 85    |

Lampiran 15. Rekap Kuesioner Manajemen Aplikasi Janjang kosong pada kebun Pangarango Estate ( PGRE ).

| No | Variabel Y |    |    |    |    |    |    | Total |
|----|------------|----|----|----|----|----|----|-------|
|    | Y1         | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 |       |
| 51 | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 86    |
| 52 | 5          | 5  | 5  | 1  | 2  | 3  | 4  | 77    |
| 53 | 2          | 3  | 3  | 4  | 4  | 4  | 4  | 77    |
| 54 | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 89    |
| 55 | 4          | 5  | 5  | 5  | 5  | 5  | 5  | 89    |
| 56 | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 91    |
| 57 | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 92    |
| 58 | 5          | 5  | 5  | 5  | 5  | 5  | 4  | 92    |
| 59 | 1          | 2  | 3  | 4  | 5  | 5  | 4  | 83    |
| 60 | 4          | 4  | 5  | 1  | 2  | 4  | 5  | 85    |
| 61 | 4          | 5  | 4  | 5  | 4  | 5  | 4  | 92    |
| 62 | 3          | 4  | 4  | 4  | 4  | 4  | 5  | 90    |
| 63 | 4          | 5  | 3  | 3  | 3  | 3  | 3  | 87    |
| 64 | 1          | 2  | 3  | 3  | 3  | 3  | 1  | 80    |
| 65 | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 100   |
| 66 | 3          | 4  | 5  | 3  | 3  | 5  | 5  | 94    |
| 67 | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 102   |
| 68 | 1          | 2  | 3  | 3  | 3  | 3  | 3  | 86    |
| 69 | 3          | 4  | 5  | 5  | 5  | 5  | 5  | 101   |
| 70 | 4          | 5  | 5  | 5  | 5  | 5  | 5  | 104   |
| 71 | 3          | 4  | 5  | 5  | 5  | 5  | 5  | 103   |
| 72 | 4          | 5  | 4  | 5  | 5  | 5  | 5  | 105   |
| 73 | 4          | 5  | 5  | 5  | 5  | 5  | 5  | 107   |
| 74 | 4          | 4  | 5  | 5  | 6  | 4  | 5  | 107   |
| 75 | 3          | 4  | 5  | 5  | 5  | 5  | 5  | 107   |

Lampiran 16. Rekap Kuesioner Manajemen Aplikasi Janjang kosong pada kebun Pangarango Estate ( PGRE ).

| No  | Variabel Y |    |    |    |    |    |    | Total |
|-----|------------|----|----|----|----|----|----|-------|
|     | Y1         | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 |       |
| 76  | 1          | 2  | 4  | 5  | 5  | 5  | 5  | 103   |
| 77  | 4          | 4  | 4  | 4  | 4  | 4  | 4  | 105   |
| 78  | 4          | 4  | 4  | 5  | 5  | 5  | 5  | 110   |
| 79  | 4          | 5  | 5  | 5  | 5  | 3  | 3  | 109   |
| 80  | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 115   |
| 81  | 4          | 5  | 5  | 5  | 5  | 5  | 5  | 115   |
| 82  | 4          | 5  | 5  | 5  | 5  | 5  | 5  | 116   |
| 83  | 5          | 4  | 4  | 4  | 4  | 4  | 4  | 112   |
| 84  | 3          | 4  | 5  | 4  | 4  | 4  | 4  | 112   |
| 85  | 4          | 5  | 5  | 5  | 5  | 5  | 5  | 119   |
| 86  | 4          | 5  | 5  | 5  | 5  | 3  | 3  | 116   |
| 87  | 4          | 4  | 4  | 5  | 5  | 5  | 5  | 119   |
| 88  | 4          | 5  | 5  | 5  | 5  | 5  | 5  | 122   |
| 89  | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 124   |
| 90  | 4          | 4  | 4  | 4  | 4  | 4  | 4  | 118   |
| 91  | 4          | 5  | 5  | 5  | 5  | 5  | 5  | 125   |
| 92  | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 127   |
| 93  | 4          | 5  | 5  | 5  | 5  | 5  | 5  | 127   |
| 94  | 4          | 4  | 4  | 4  | 4  | 4  | 4  | 122   |
| 95  | 4          | 4  | 4  | 4  | 4  | 4  | 4  | 123   |
| 96  | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 131   |
| 97  | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 132   |
| 98  | 5          | 4  | 4  | 4  | 4  | 4  | 4  | 127   |
| 99  | 5          | 4  | 4  | 4  | 4  | 4  | 4  | 128   |
| 100 | 5          | 5  | 5  | 5  | 5  | 5  | 5  | 135   |

