



**INSTITUT PENYELIDIKAN DAN  
KEMAJUAN PERTANIAN  
MALAYSIA**  
Malaysia Agricultural Research and Development Institute  
[www.mardi.gov.my](http://www.mardi.gov.my)

Food & Agriculture Analysis Laboratory  
Technical Services & Technology Commercialization Centre  
MARDI Headquarters  
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43400 Serdang, Selangor, Malaysia  
**Coordinate: 2.983392:101.700652**  
Tel: 03-8953 6938 Faks: 03-8953 6846 Email: [haslina@mardi.gov.my](mailto:haslina@mardi.gov.my)

Our ref : TS3/ESSE/2016-0481/16  
Date : 14 NOVEMBER 2016

LICIN LICIN ENTERPRISE  
NO 18, JALAN SB JAYA 3  
TAMAN PERINDUSTRIAN SB JAYA  
47000 SUNGAI BULOH  
SELANGOR

Sir/Madam,

**RESULT OF ANALYSIS**

Thank you for choosing our laboratory. Enclosed are the analysis results of your samples.

Please don't hesitate to contact us for any enquiries.

Thank you.

Best regards,

o.b Director

(DR HASLINA BINTI HASAN)  
Deputy Director  
Food & Agriculture Analysis Laboratory  
Laboratory & Technical Services Centre  
MARDI

c.f

Agriculture Laboratory



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43400 Serdang, Selangor, Malaysia  
**Coordinate: 2.983392:101.700652**  
Tel: 03-8953 6008 Faks: 03-8953 6846 Email: [sanni@mardi.gov.my](mailto:sanni@mardi.gov.my)

Date : 14 NOVEMBER 2016

LICIN LICIN ENTERPRISE  
NO 18, JALAN SB JAYA 3  
TAMAN PERINDUSTRIAN SB JAYA  
47000 SUNGAI BULOH  
SELANGOR

Sir/Madam,

### **RESULT OF ANALYSIS**

I am pleased to inform that your respective product: Lemony Citronella (LicinLicin Enterprise) contains chemical compound namely Citronellol (Origin : *Cymbopogon nardus*). The chemical compound has the potential as mosquito repellents based on previous literatures and studies

1. Marta Ferreira Maia, Sarah J Moore (2011) Plant-based insect repellents: a review of their efficacy, development and testing. *Malaria Journal*, 10(Suppl 1): S11 (doi: 10.1186/1475-2875-10-S1-S11)
2. Y.G. Gillij, R.M. Gleiser, J.A. Zygadlo, (2008) Mosquito repellent activity of essential oils of aromatic plants growing in Argentina. *Bioresource Technology*, 99 (7) 2507-2515 (<http://dx.doi.org/10.1016/j.biortech.2007.04.066>.)

Please don't hesitate to contact us for any enquiries.

Thank you.

Best regards,

(KHALISANNI KHALID)  
Research Officer (AMIC: M/3131/5691/10/11)  
Food & Agriculture Analysis Laboratory  
Technical Services & Technology Commercialization Centre  
MARDI



**TEST CERTIFICATE**

Date of Issue: 14/11/2016  
Serial Number: TS3/TC/2016-429



Food & Agriculture Analysis Laboratory  
Laboratory & Technical Services Centre  
Ibu Pejabat MARDI  
Persiaran MARDI-UPM  
43400 Serdang  
Selangor

**Name of Customer:** LICIN LICIN ENTERPRISE  
**Address:** NO 18 JALAN SB JAYA 3 TAMAN PERINDUSTRIAN SB JAYA 47000 SUNGAI BULOH SELANGOR

**Date of received of test items:** 09/11/2016  
**Commencement of analysis (Payment Received):** 09/11/2016  
**Sample Batch:** ESSE/2016-0481  
**Number of Test Material:** 1  
**Brief Description:** LEMONY CITRONELLA (LICIN LICIN)  
**Analysis Group Requested:** Chemical Properties

**Approved Signatory**

1. The Company are prohibited to use MARDI's logo / name in any forms of advertisement.
2. The results of this analysis shall only applicable to the item as specified above.
3. The Company agree and undertake that MARDI shall have no responsibility or liability whatsoever in relation to the results of this analysis and the company shall indemnify MARDI from and against all liabilities including losses, claims, proceeding, damages, costs and expenses arising out of use of any information developed by or arising from the results of this analysis.

**MOHD LIP BIN JABIT**  
**A/1734/4043/00**

Program Pengurusan Makmal  
Pusat Perkhidmatan Teknikal & Makmal  
MARDI, Serdang

**TEST CERTIFICATE**


Date of Issue: 14/11/2016  
Serial Number: TS3/TC/2016-429

Analysis Code & Name	Results	Units
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**ESSE/2016-0481/0001**  
**LEMONY CITRONELLA**

Chemical Properties

CITRONELLOL



**Approved Signatory**

MOHD LIP BIN JABIT  
A/1734/4043/00  
Pegawai Penyelidik Kanan  
Program Pengurusan Makmal  
Pusat Perkhidmatan Teknikal & Makmal  
MARDI, Serdang

