OPSRI
Oil Palm SSR Resource Interface
Pocket Manual

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1. Go to http://opsri.mpob.gov.my

![OPSRI Login page](image)

**Figure 1: OPSRI Login page**

i. Please key in email address and password and click “Submit” button for login.

ii. For a new user, click on the “Not a Member? Register here!” link. The user registration form will be displayed. Please fill in all the information needed (Figure 2).

![OPSRI registration form](image)

**Figure 2: OPSRI registration form**
OPSRI Home page

B. Quick Links

Oil Palm SSR Resource Interface (OPSRI)

A SSR data management and automated web-based pipeline, Oil Palm SSR Resource Interface (OPSRI) can mine SSR from a large collection of oil palm sequences. The graphical user interface is also integrated with the primer design function, facilitating the development of SSR markers in a simple process flow. The SSR markers are effective tools in assisting breeding efforts towards developing new and improved palms with desired traits.

**Note:** Please note that the performance of the pipeline and results depend on the data-sets and parameters used, hardware and system resources available and the number of concurrent users. Kindly wait patiently for your results. Thank you.

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Figure 3: OPSRI Homepage
1. File Manager
   a) Upload your sequence

Figure 4: File manager page
b) View uploaded sequence

Figure 5: File manager page
c) View analysis results

**Oil Palm SSR Resource Interface (OPSRI)**

Figure 6: File manager page
2. Analysis tools

Provides a stand alone analysis mode by selecting one of the programs:

i. Find open reading frames (ORF)
ii. Find Simple Sequence Repeat (SSR)
iii. Find homology sequence

*Please upload FASTA sequence at the File Manager Module and select your file

**Note:** Please note that the pipeline performance and results depend on the data-set and parameters, host hardware, system and bioinformatics software, the number of concurrent users and etc. so kindly be patient in waiting to receive your results. Work is ongoing to upgrade hardware, software and etc. Thank you.

Figure 7: Interface for the user to choose the program of choice
3. Analysis pipeline

Integrated analysis pipeline system with:

i. Find ORF
ii. MISA
iii. Primer3
iv. BLAST

Figure 8: Analysis pipeline page
4. **SSR database**

Explore a comprehensive collection of oil palm SSR primers. SSR primer pairs that have been tested and found to be polymorphic can be identified using this module.

![Oil Palm SSR Resource Interface (OPSRI)](image)

**Figure 9: Database module**
Search by:-

i. Marker name - Fill in marker name  
   e.g: sMg00026

ii. SSR type - Choose SSR type at the drop down menu  
   e.g: p3

iii. Primer sequence - Fill in primer sequence (max 27 char)  
    e.g: CCCGAATTAAGCCTGATGAA

iv. Screening result - Fill in marker name  
    e.g: sMg00200

v. Genotyped result - Fill in marker name  
    e.g: sMg00200
5. Publication

List of publications contribute to the public data in the SSR database

**Figure 10: Publication page**
6. Contact us

Fast communication method to interact with MPOB

Figure 11: Contact us page
Quick Links

1. Home
Redirect to the web homepage

2. Sitemap
Redirect to the sitemap page

Figure 12: Sitemap page
3. Change password

Redirect to the change password page

4. Logout

Exit the website and go to Login page
COMPETITIVE EDGE THROUGH BIOENGINEERING

OPSRI is a web-based pipeline system that is integrated with several useful tools, namely MISA, Primer3 and BLAST for SSR, primer design and annotation. Three modules (Analysis, Database and Query) are provided in a graphical user interface to facilitate the task and assist in data archiving. In addition, other useful information such as SSR type, SSR motif, primer information, and marker profile in specific populations is also captured.