



**MINISTER OF ENVIRONMENT AND FORESTRY OF THE
REPUBLIC OF INDONESIA**

REGULATION OF THE MINISTER OF ENVIRONMENT AND FORESTRY OF THE
REPUBLIC OF INDONESIA

NUMBER P.69 / MenLHK / Setjen / Kum.1 / 8 / 2016 ON
PROCEDURES FOR ENVIRONMENTAL SAFETY TESTING OF GENETICALLY
ENGINEERED PRODUCTS IN LIMITED TEST FIELDS

BY THE GRACE OF GOD ALMIGHTY

MINISTER OF ENVIRONMENT AND FORESTRY OF THE REPUBLIC OF INDONESIA,

Weighing : that as the implementation of Article 7 and Article 19 of Government Regulation Number 21 of 2005 on Biosafety of Genetically Engineered Products, it is necessary to stipulate a Regulation of the Minister of Environment and Forestry on the Procedures for Environmental Safety Testing of Genetically Engineered Products in Limited Test Fields;

In View Of : 1. Law Number 32 of 2009 on Environmental Protection and Management (State Gazette of the Republic of Indonesia of 2009 Number 140, Supplement to the State Gazette of the Republic of Indonesia Number 5059);

2. Government Regulation Number 21 of 2005 on Biosafety of Genetically Engineered Products (State Gazette of the Republic of Indonesia of 2005 Number 44, Supplement to the State Gazette of the Republic of Indonesia Number 4498);
3. Presidential Regulation Number 39 of 2010 on the Biosafety Commission for Genetically Engineered Products, as amended by Presidential Regulation Number 53 of 2014 on Amendments to the Presidential Regulation Number 39 of 2010 on the Biosafety Commission of Genetically Engineered Products (State Gazette of the Republic of Indonesia of 2014 Number 127);
4. Presidential Regulation Number 7 of 2015 on State Ministry Organizations (State Gazette of the Republic of Indonesia of 2015 Number 8);
5. Presidential Regulation Number 16 of 2015 on the Ministry of Environment and Forestry (State Gazette of the Republic of Indonesia of 2015 Number 17);
6. Presidential Decree Number 121 / P of 2014 on Establishment of Ministries and Appointment of Work Cabinet Ministers 2014-2019, as amended by Presidential Decree Number 80 / P of 2015 on Dismissal and Appointment of Cabinet Secretary;
7. Regulation of the Minister of Environment Number 25 of 2012 on Guidelines for Preparing Environmental Risk Analysis Documents for Genetically Engineered Products (State Gazette of the Republic of Indonesia of 2013 Number 50);
8. Minister of Environment and Forestry Regulation Number P. 18 / MenLHK-II / 2015 on the Organization and Work Procedure of the Ministry of Environment and Forestry (State Gazette of the Republic of Indonesia of 2015 Number 713);

DECREES :

Stipulating : REGULATION OF THE MINISTER OF ENVIRONMENT AND FORESTRY OF THE REPUBLIC OF INDONESIA ON PROCEDURES FOR ENVIRONMENTAL SAFETY TESTING OF GENETICALLY ENGINEERED PRODUCTS IN LIMITED TEST FIELDS.

CHAPTER I

GENERAL

Article 1

In this Ministerial Regulation what is meant by :

1. Genetically engineered products or modified organisms, hereinafter abbreviated as PRG, are living organisms, their parts and / or processed products that have new genetic makeup from the results of the application of modern biotechnology.
2. PRG plants are plants produced from the application of genetic engineering techniques.
3. PRG Environmental Safety Tests on Limited Test Fields are PRG plant testing for research purposes as well as to obtain the data needed in completing the environmental risk analysis document of PRG crops.
4. Limited Test Field, hereinafter abbreviated as LUT, is an area used for testing PRG crops which requires restrictive measures such as reproductive isolation and limitation of plant material and novel genes (new genes) so as not to escape the LUT location.
5. Environmental safety is the conditions and efforts needed to prevent the possibility of risks that harm biodiversity as a result of the use of PRG.
6. Novel genes (new genes) are genes that are inserted into the genome of the PRG plant.

7. Release is a statement admitting that the results of breeding become superior varieties and can be disseminated after fulfilling the requirements based on the provisions of the legislation.
8. Applicant is an individual, group of people and / or legal entity who submits an application for PRG plant testing on the LUT.
9. Everyone is an individual, group of people and / or legal entity.
10. The Biosafety Technical Team of Genetically Engineered Products, hereinafter abbreviated as TTKH, is a Team given the task of assisting the KKH in carrying out evaluations and technical assessments of biosafety as well as the feasibility of using PRG.
11. Genetically Engineered Product Biosafety Commission, hereinafter referred to as KKH PRG, is a non-structural institution that provides biosafety recommendations to the Minister of Environment and Forestry as the basis for the issuance of the PRG Environmental Safe Permit.
12. Minister is the Minister who organizes government affairs in the field of environment and forestry.
13. The relevant Minister is the minister whose scope of duties and functions are in the field of release and circulation of PRG.

Article 2

The procedures for testing the environmental safety of PRG crops in the LUT are intended as guidelines and provide environmental safety certainty in the implementation of PRG plant testing on the LUT.

Article 3

The scope of this Ministerial Regulation includes:

- a. Procedure for testing; and
- b. Reporting;

CHAPTER II
TESTING PROCEDURES

Part One
General

Article 4

- (1) The procedure for testing PRG crops in the LUT as referred to in Article 3 letter a is for research or release.
- (2) Anyone who will plant PRG crops to research or release PRG crops in Indonesia must pay attention to environmental safety.
- (3) PRG plant testing for research as referred to in paragraph (2) must be carried out on LUTs that meet the requirements.
- (4) The release of PRG crops in Indonesia as referred to in paragraph (2), must be carried out, at:
 - a. Laboratories that meet the requirements if data is not yet available;
 - b. Limited test facilities that meet requirements if data is not yet available; and / or
 - c. LUT that meets the requirements..
- (5) LUT that meets the requirements as referred to in paragraph (3) and paragraph (4) letter c is further elaborated in each Attachment which is an integral part of this Ministerial Regulation.
- (6) Environmental safety testing carried out in the LUT as referred to in paragraph (1) shall be carried out in accordance with this Ministerial Regulation.

Part Two
Application for Testing Procedures

Article 5

- (1) Requests for PRG plant testing in the LUT for research are submitted to the Minister with a copy submitted to:
 - a. Director General of Conservation of Natural Resources and Ecosystems; and
 - b. Head of Research, Development and Innovation Agency, related to the commodity being tested.
- (2) Requests for PRG plant testing in the LUT for release shall be submitted to the relevant Minister with copy submitted to:
 - a. Director General of Conservation of Natural Resources and Ecosystems;
 - b. Relevant Director General; and / or
 - c. Head of Research, Development and Innovation Agency, according to the commodity being tested.
- (3) The application as referred to in paragraph (1) and paragraph (2), is completed with a document consisting of:
 - a. Application letter;
 - b. Administrative documents for applicants of institutions / companies, which contain:
 1. Name of company / agency;
 2. Deed of establishment / legality;
 3. Taxpayer Identification Number;
 4. Name of leader / person in charge;
 5. Trading Business License; and
 6. Company Registration Certificate;
 - c. Administrative documents for Individual / Professional Research applicants, which contain:
 1. Name of Applicant;
 2. Curriculum Vitae;
 3. Taxpayer Identification Number;
 4. Address of the Applicant;
 5. Self Identification Number / ID card;

6. Profession (Researchers in the field of genetic engineering); and
7. Professional / Employment Identity;

d. Proposal

- (4) The proposal referred to in paragraph (3) letter d includes, among other things, a Curriculum Vitae of the PRG Testing Team on the LUT or method of implementation.

Part Three

Timetable

Article 6

- (1) The application as referred to in Article 5 paragraph (1), within a maximum period of 14 (fourteen) working days, the Minister assigns the KKH PRG to review the PRG plant testing documents on the LUT.
- (2) KKH PRG within a period of 14 (fourteen) working days checks the administrative documents and if it has fulfilled the administrative requirements, assigns the PRG Biosafety Technical Team (TTKH) to conduct a technical review.
- (3) In the event that an administrative document as referred to in paragraph (2) is not complete and / or not suitable, the document is returned to be completed.
- (4) TTKH PRG as referred to in paragraph (2) conducts a technical review within 60 (sixty) working days.
- (5) The TTKH ORG submits the results of the assessment to the KKH PRG no later than 14 (fourteen) working days after the completion of the assessment.
- (6) The KKH PRG as referred to in paragraph (5) shall convey approval or rejection of the implementation of PRG plant testing in the LUT to the Minister.

- (7) If the application is rejected as referred to in paragraph (6), the reasons for rejection must be provided.

Article 7

- (1) The application as referred to in Article 5 paragraph (2), within a maximum period of 14 (fourteen) working days, the relevant Minister assigns the KKH PRG to review the PRG plant testing in the LUT documents.
- (2) KKH PRG within a period of 14 (fourteen) working days checks the administrative documents and if they have fulfilled administrative requirements, assigns the TTKH PRG to conduct technical assessments.
- (3) In the event that an administrative document as referred to in paragraph (2) is not complete and / or not suitable, the document is returned to be completed.
- (4) TTKH PRG as referred to in paragraph (2) conducts a technical review within 60 (sixty) working days.
- (5) The TTKH PRG submits the results of the assessment to KKH PRG within a period of 14 (fourteen) working days from the completion of the assessment.
- (6) The KKH PRG as referred to in paragraph (5) submits approval or rejection of the implementation of PRG plants in the LUT to the relevant Minister.
- (7) If the application is rejected as referred to in paragraph (6), the reasons for rejection must be provided.

Article 8

The proposal referred to in Article 5 paragraph (3) letter d that has been approved by the TTKH PRG is signed by the applicant and coordinator of the TTKH PRG.

Article 9

- (1) The applicant carries out the PRG plant testing in the LUT in accordance with the testing document that has been approved by the Minister or relevant Minister.
- (2) In the event of a change in the test implementation plan as referred to in paragraph (1), the applicant is obliged to submit changes to the TTKH PRG.
- (3) Amendments to the testing implementation plan as referred to in paragraph (1) must be approved by the TTKH PRG..

Article 10

Procedure and Format for application of PRG plant testing in the LUT as listed in Attachment I which is an integral part of this Ministerial Regulation or can be downloaded through the BKKH website (<http://www.indonesiabch.or.id>).

Article 11

The period of approval of the PRG plant testing proposal in the LUT is valid for 2 (two) years.

Article 12

- (1) Environmental safety testing in the LUT as referred to in Article 5 paragraph (1) and paragraph (2), is carried out in stages of:
 - a. pre-testing;
 - b. implementation of testing; and
 - c. post-testing
- (2) Pre-testing as referred to in paragraph (1) letter a, is carried out by observing:
 - a. seed handling or PRG plant material
 - b. implementation of environmental risk communication.
- (3) Handling of seeds or PRG plant test material as referred to in paragraph (2) letter a includes the safety of the transportation and storage process

- (4) The implementation of environmental risk communication as referred to in paragraph (2) letter b, is carried out by the applicant prior to the planting of PRG crops in the LUT.
- (5) Pre-testing as referred to in paragraph (2) letter a and letter b, as stated in Attachment II which is an integral part of this Ministerial Regulation

Part Four
Testing
Implementation

Article 13

- (1) (1) The test as referred to in Article 12 paragraph (1) letter b, is carried out by observing:
 - a. safety of the test site location from interference;
 - b. adequacy of testing facilities and infrastructure;
 - c. testing methods that follow scientific rules;
 - d. emergency response; or
 - e. implementation of supervision.
- (2) The implementation of testing as referred to in paragraph (1), as stated in Attachment III which is an integral part of this Ministerial Regulation.

Part Five
Post-Testing

Article 14

- (1) Post-testing as referred to in Article 12 paragraph (1) letter c, covers activities of:
 - a. destruction of test material; and
 - b. monitoring of volunteer plants.
- (2) Post-testing as intended in paragraph (1), as listed in Attachment IV which is an integral part of this Ministerial Regulation.

CHAPTER III
REPORTING

Article 15

- (1) Reporting as referred to in Article 3 letter b, must be submitted by the applicant which includes:
 - a. pre-testing;
 - b. implementation of testing; and
 - c. post-testing monitoring.
- (2) Reports on the implementation of pre-testing as referred to in paragraph (1) letter a include the results of preparation activities and risk communication, made in the form of descriptive data, quantitative data supplemented with documentation and minutes of risk communication implementation.
- (3) Reporting on the implementation of pre-testing as referred to in paragraph (1) letter b, shall be submitted to the TTKH PRG in the form of a written report within a period of 1 (one) year after the end of the testing and destruction.
- (4) Submission of a written report covering pre-testing activities, testing implementation activities and monitoring activities for a maximum of 1 (one) year after the observation of the volunteer plant ends.
- (5) The written report as referred to in paragraph (4), submitted to the TTKH PRG is the result of a compilation of 4 (four) testing locations that have been made by collaborators.
- (6) The written report referred to in paragraph (5), contains an executive summary, introduction, materials and methods, results and discussion, conclusions, thank-you notes, bibliography and attachments..

- (7) The post-testing monitoring report as referred to in paragraph (1) letter c includes the results of the activities of the destruction of the remaining test material and observations of volunteer plants made in descriptive, quantitative form and completed with documentation.
- (8) Post-testing monitoring reports as referred to in paragraph (7) shall be submitted in 1 (one) file to the TTKH PRG Secretariat no later than 1.5 (one and a half) years after the destruction of the remaining test material is completed.

Article 16

- (1) The report as referred to in Article 15 must be presented before the TTKH PRG.
- (2) The report as referred to in paragraph (1), after the presentation before the TTKH PRG, is carried out by the applicant by paying attention to the suggestion, input, response from TTKH PRG.
- (3) The report as referred to in paragraph (2), after an improvement has been made on the suggestion, input, response and has been approved by the TTKH PRG, passed by the TTKH PRG Coordinator and the applicant..

CHAPTER IV

TRANSITIONAL PROVISIONS

Article 17

With the enactment of this Ministerial Regulation, the stipulation of the PRG plant environmental safety testing in the LUT that has been established and has been prepared before the enactment of this Ministerial Regulation, is declared to remain valid and must be adjusted based on this Ministerial Regulation no later than 2 (two) years from the enactment of this Ministerial Regulation.

CHAPTER V

CLOSING

Article 18

This Ministerial Regulation comes into force on the date of promulgation.

For public cognizance, this Ministerial Regulation shall be promulgated by placing it in the State Gazette of the Republic of Indonesia.

Stipulated in Jakarta

On 9 August 2016

MINISTER OF ENVIRONMENT AND
FORESTRY OF THE REPUBLIC OF
INDONESIA,

Signature.

SITI NURBAYA

Promulgated in Jakarta

On 1 September 2016

DIRECTOR GENERAL OF REGULATIONS

MINISTRY OF LAW AND HUMAN RIGHTS OF THE
REPUBLIC OF INDONESIA,

Signature.

WIDODO EKATJAHJANA

STATE GAZETTE OF THE REPUBLIC OF INDONESIA OF 2016 NUMBER 1310

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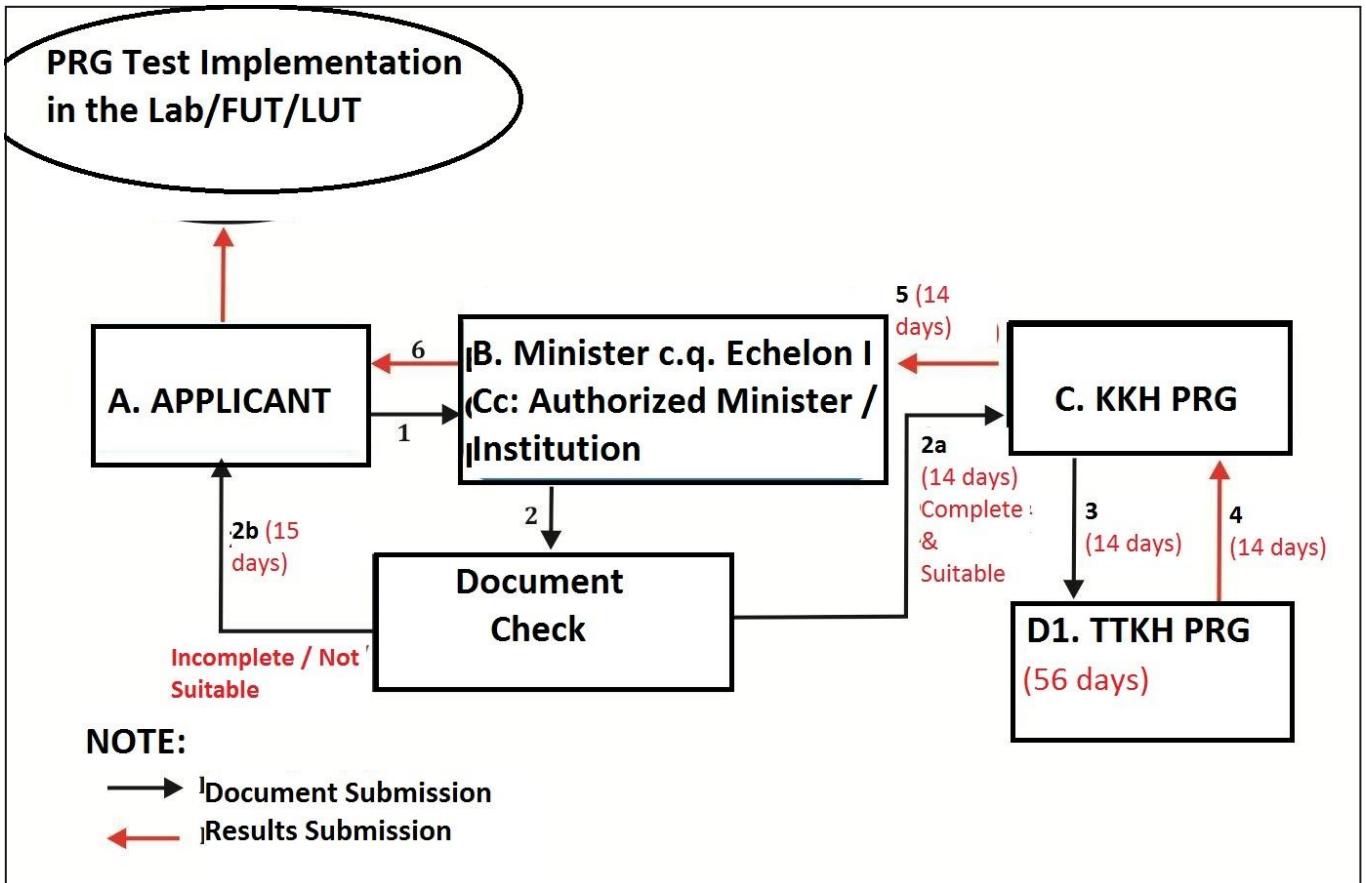
HEAD OF LEGAL BUREAU,

Signature.

KRISNA RYA

ATTACHMENT I REGULATION OF THE MINISTER OF ENVIRONMENT AND FORESTRY
NUMBER : P.69/MenLHK/Setjen/Kum.1/8/2016
ON : PROCEDURES FOR THE ENVIRONMENTAL SAFETY TESTING OF
GENETICALLY ENGINEERED PRODUCTS IN LIMITED TEST
FIELD

APPLICATION PROCEDURE FOR PRG TESTING on the LUT



FORMAT OF APPLICATION FOR TESTING PRG
PLANTS IN THE LUT FOR COMPANIES / INSTITUTIONS

....[place],.... [date]

Number :

Attachment :

Regarding : Testing Application ... [product name] PRG in the LUT

To.

Minister of Environment and Forestry

Cq. Director General of Natural Resources and Ecosystem Conservation

in

Jakarta

With this, we:

1. Company / Institution Name *) :
2. Deed of Establishment / Legality (attached) :
3. Taxpayer Identification Number (NPWP) (attached):
4. Name of Leader / Person in Charge :
5. Address of Company / Institution Office *) :
6. Trading Business License :
7. Company Registration (attached) :

Submit an application for PRG [product name] testing in the Limited Test Field. As a material consideration, a written proposal is submitted to complete the application.

Thank you.

Name and Signature of Leader / Person
in Charge
Signature
(Name)

Cc:

Minister of Agriculture c.q. Head of Agricultural Research and Development
Agency

*) Cross the unnecessary ones

FORMAT OF APPLICATION FOR TESTING PRG PLANTS IN THE LUT
FOR INDIVIDUALS (PROFESSIONAL RESEARCHERS)

...[place],....[date]

Number :
Attachment :
Regarding : Testing Application [product name] PRG in the LUT

To.
Minister of Environment and Forestry
Cq. Director General of Natural Resources and Ecosystem Conservation
in
Jakarta

Bersama ini kami :

1. Company / Agency Name *) :
2. Deed of Establishment / Legality (attached) :
3. Taxpayer Identification Number (NPWP) (attached) :
4. Applicant Address :
5. Self Identification Number (KTP) (attached) :
6. Profession (Researcher in the field of genetic engineering) :
7. Professional / Employee Identity (attached) :

Submit an application for PRG [product name] testing in the Limited Test Field. As a material consideration, a written proposal is submitted to complete the application. Thank you.

Name and Signature of Leader / Person in Charge
Signature
(Name)

Cc:

Minister of Agriculture c.q. Head of Agricultural Research and Development Agency

*) Cross the unnecessary ones

Copy is in accordance with the original
HEAD OF LEGAL BUREAU,

MINISTER OF ENVIRONMENT AND
FORESTRY OF THE REPUBLIC OF
INDONESIA,

signature.

signature.

KRISNA RYA

SITI NURBAYA

ATTACHMENT II REGULATION OF THE MINISTER OF ENVIRONMENT AND FORESTRY

NUMBER : P.69/MenLHK/Setjen/Kum.1/8/2016
ON : PROCEDURES FOR THE ENVIRONMENTAL SAFETY TESTING OF GENETICALLY ENGINEERED PRODUCTS IN LIMITED TEST FIELD

PRE-TESTING OF PRG PLANT IN THE LUT

1. 1PRG Testing Proposal

The proposal consists of:

- a. title page,
- b. endorsement page; and
- c. table of contents

as the example below:

- a. Title page

The Title page conveys the PRG event to be tested and the applicant's name. The proposal title is "Proposal of Environmental Safety Test Plant [name of commodity and event] PRG in Limited Test Field." In addition, each revision of the proposal based on the results of the TTKH PRG input is conveyed on the title page (eg R1 for Revision 1; R2: for Revision 2 , etc).

<table border="1"><tr><td style="text-align: center;">R1</td></tr></table>	R1
R1	
Proposal of Environmental Safety Test Plant [name of commodity and event] PRG in Limited Test Field	
Company / Institution Name	
Year	

b. Endorsement page

This Endorsement Page is signed by the head of the company / agency and the TTKH PRG Coordinator.

Ratification of Proposal of Environmental Safety Test Plant [name of commodity and event] PRG	
in Limited Test Field	
Jakarta,.....(day, month, year)	
.....signature.....signature.....
Name of TTKH PRG Coordinator	Name of Company / Institution Leader
Position	Position

c. Table of Contents

The table of contents consists of foreword, executive summary, table of contents, list of tables, list of attachments, introduction, implementation of testing, management and supervision of LUT, harvesting procedures and destruction of the rest of the test, as well as bibliography, as follows:

TABLE OF CONTENTS

Foreword

Executive Summary

Table of contents

List of Tables

List of Attachments

Chapter I. Introduction

1. Background
2. Testing Objectives

Chapter II. Testing Implementation

1. Testing Location

The test location is conveyed along with 3 types of maps: LUT location map, LUT and surrounding ecosystem map, and LUT plan

2. Testing Parameter and Method

Conveying the parameters tested in the LUT as well as the testing method implemented.

3. Work Plan

Explaining the tentative work plan that will be carried out by the company, which includes:

- a. plan to import seeds,
- b. risk communication implementation plan,
- c. planting plan,
- d. harvesting plan,
- e. destruction of the remaining test results plan,
- f. volunteer monitoring plan

4. Testing Implementer and Person-in-Charge

The person in charge and Implementer of the PRG Test, which consists of:

(A) the person in charge of testing from the company;

(B) Implementer of the LUT Test as a collaborator..

(Inform in detail and if there are already is, attach a cooperation contract between the company and collaborators). Also convey the Implementation Team with the following format:

No.	Full Name	Position in the Testing	Last Education & Expertise	Task in the Testing
1				
2				
3				

All Curriculum Vitae (CV) from the Testing Implementation Team must be attached.

Chapter III. LUT Management and Supervision

1. LUT Management and Facilities
2. LUT Security and Supervision

Attach the SOP for Security and Supervision in the LUT

3. Emergency Management

Attach the SOP to Emergency Management

Chapter IV. Harvesting Procedure and Destruction of Test Residuals

1. Harvesting Procedures
2. Destruction of Test Result Residuals

Submitting methods for eliminating the test results residuals and attaching the SOP

3. Used LUT land use

BIBLIOGRAPHY

ATTACHMENTS

2. Handling of seeds or plant material (Test Material)

The procedure for storing PRG plant test materials in the laboratory and transportation of PRG plant test material from the laboratory to the location of the LUT is intended to maintain the purity of the seeds and the release of material to the environment. Handling of PRG plant test material includes: handling before shipment from storage and when receiving at LUT locations.

2.1. Provisions for storing PRG plant test material

- a. PRG plant test material must be stored with a mark / label with clear writing, cannot be erased, and indicates that the test material of the plant is PRG material.

- b. The storage area for PRG plant test material must be separated from other material storage areas to avoid mixing PRG plant test material with non-PRG plant material.
- c. The location for storing PRG plant test material must meet safe requirements, be given a special mark, and have limited access only to registered officers.
- d. Storage of PRG plant test material must use strong packaging, not easily torn or damaged, and does not allow material to be scattered.

2.2 . Provisions for transporting PRG plant test material

- a. Each transportation of the PRG plant material and its parts to be transported from the border to the storage area, as well as from the storage place to the LUT location must use a conveyance device that ensures the safety of PRG plant test material.
- b. The amount of test material transported must be the same, nothing is lost, from the time of packing until when transportation reaches the LUT location.
- c. PRG plant test materials and / or parts that will be brought to the LUT, must be placed in a closed container that is strong and labeled and not easily damaged.
- d. All equipment used in the transfer of PRG materials and / or plants must be cleaned immediately, either for use elsewhere or for storage.
- e. To prevent the spread of seeds or PRG plant test materials, all seeding and harvesting equipment in LUT activities must be cleaned inside the LUT before being transported and used elsewhere.

2.3 . Labelling

Writing on labels must be clearly read. In general labeling includes plant species, material forms (seeds, tubers, etc.), the treatment that has been given to the material that requires special handling, the date and amount of packaged material (weight or number of seeds, number of tubers, etc.), name of packaging officer, and the name, full address and telephone number of the officer who can be contacted at any time in the event of an unplanned PRG release. Labeling imported material must include an import permit number and phytosanitary certificate.

2.4 . Officer

In the case of access, storage, handling and transportation, the PRG material must be ensured that all officers involved in the relevant process have received appropriate and adequate training, so that they fully understand their obligation to ensure that the material is stored, handled, packaged, labeled and transported correctly. The relevant officer must ensure that the material is properly recorded and knows for sure to act in the event of unplanned material release. Standard Operating Procedures regarding handling, storage and transportation must be written and easily accessed by all officers. The names of officers and assignments given are submitted in the proposal.

3. Environmental risk communication

Environmental risk communication must be carried out by the applicant before planting PRG crops on the LUT. Risk communication is carried out for employees or institutional workers where the LUT is carried out, district / city government agencies (agencies that handle the fields of Agriculture, Fisheries, Forestry, Environment), experts from universities and local research institutions, as well as other relevant parties. If testing is carried out on farmers' land, risk communication is also carried out for farmers around the LUT location. Invitations to related parties must be proven with an invitation receipt to attend an environmental risk communication event.

The information conveyed in the risk communication includes the PRG crops to be tested, the benefits of PRG crops, the possibility of PRG risk and the procedures for testing PRG crops.

Minutes of environmental communication activities must be made after the implementation of activities that must be signed by the implementer and representatives of participants. The report on the implementation of environmental risk communication must be submitted to TTKH which includes documentation, minutes, report, attendance list of activities and minutes.

Report Cover
Introduction
Table of contents
List of Tables
List of Figures
List of Pictures
List of Attachments
I. INTRODUCTION
II. MATERIALS AND COMMUNICATION METHODS
1. Time and Location of Activities
2. Number of Participants and Institutions / Professions
3. Material used
4. Communication Method
5. Arrangement of Events and Speakers
III. COMMUNICATION IMPLEMENTATION RESULTS
1. Material presented
2. Discussion (Question and Answer minutes)
IV. CONCLUSIONS AND RECOMMENDATIONS
Attachments
Letter of invitation
List of invited candidates and their institutions / professions
Report of invitation (receipt of accepting invitation)
Attendance list of participants (name, agency, position, initials)

4. Selection of Location, Number and Size of LUT

4.1. Consideration in location selection

The things that must be considered in choosing LUT locations are as follows:

- a. representing the agro ecological zone;
- b. in accordance with the agronomic requirements of the commodity being tested (land and season);
- c. the area of the LUT that facilitates monitoring and handling;
- d. not adjacent to settlements (minimum 300 meters) and in agricultural environments;
- e. not adjacent to a conservation area (minimum 1 km);
- f. not adjacent to the location of the existence of its wild relatives;
- g. not an area prone to flood, drought, earthquake, landslide..

4.2. Location history

In the testing proposal, the applicant must convey the history of the land used for the LUT location, for example the ownership and status of the land and previous land use.

4.3. Location mapping

The proposal must be equipped with three types of maps to provide a complete description of the location of the selected LUT, namely: (a) map of LUT locations; (b) map of the LUT and the surrounding ecosystem; (c) LUT plan. Maps must be made on a standard scale and provide detailed information on the size of the LUT and the distance to the surrounding area (plants, buildings, or other forms of landscape). In addition, mark also rivers, lakes, forests (including conservation forests), and other types of ecosystems that need attention. The location of the LUT on the map must be equipped with its geographical position (coordinates).



Figure 1. Example of LUT Geographic Location Map (address and coordinates)



Figure 2. Example of LUT and surrounding ecosystems map

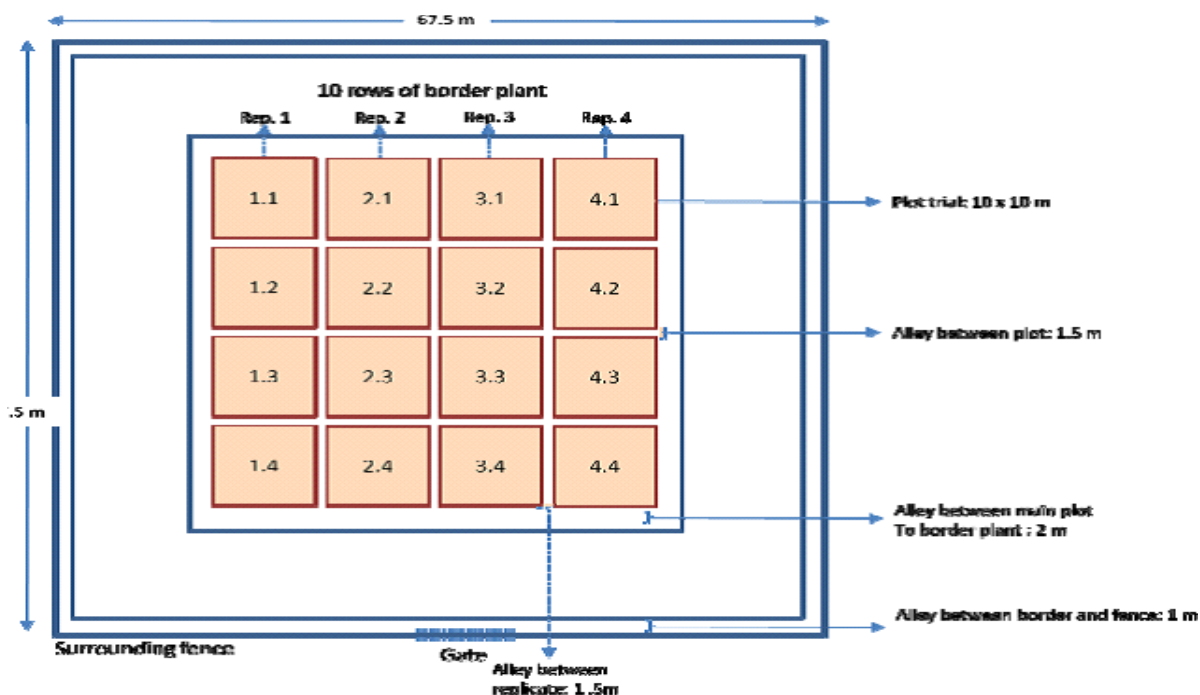


Figure 3. Example of the LUT experiment layout

4.4 Number and size of LUT

The number of LUTs for environmental safety testing is set at 4 locations representing different agro-ecosystems. The size of the LUT is determined based on the type of commodity tested. The experimental design applied in the LUT, including the size and number of experimental plots must meet the principles of scientific methodology. For example for environmental safety testing of PRG rice, the minimum size of the plot of plants tested for each treatment is 7 x 8 m².

Copy is in accordance with the original
HEAD OF LEGAL BUREAU,

signature.

KRISNA RYA

MINISTER OF ENVIRONMENT AND
FORESTRY OF THE REPUBLIC OF
INDONESIA,

signature.

SITI NURBAYA

ATTACHMENT III REGULATION OF THE MINISTER OF ENVIRONMENT AND FORESTRY

NUMBER : P.69/MenLHK/Setjen/Kum.1/8/2016

ON : PROCEDURES FOR THE ENVIRONMENTAL SAFETY TESTING OF GENETICALLY ENGINEERED PRODUCTS IN LIMITED TEST FIELD

IMPLEMENTATION OF TESTING PRG PLANTS IN THE LUT

PRG plant testing in the LUT must meet the safety requirements for new genes and PRG plant material by meeting the following conditions:

- a. prevent the release of new genes from the research location through pollen, seeds, and other parts of plants (e.g. tubers, cuttings, etc.) or in the form of plant material;
- b. prevent PRG plant material for consumption by humans and animals;
- c. prevent mixing of seeds or other parts of PRG plants with non-PRG

To meet these security requirements, the following matters must be considered:

1. LUT Facilities

The minimum facilities that must be owned at the LUT location are:

- a. Fences with a sturdy structure, a minimum of 2 meters high and have a function as a LUT limiting area to prevent humans and animals from entering the LUT area. Especially for rice and other types of plants that are often eaten by birds, nets are installed at the top of the LUT
- b. Entrance door with locks.
- c. Space for storage of lab coats, field shoes and other equipment. The location of the storage area must be inside the LUT fence and adjacent to the entrance.

- d. Nameplate (contains information about the title of the activity, the event tested, location of LUT (name of village, district and regency), area of LUT, testing plot plan, time of execution, experiment design, name and telephone number of the person in charge of the test and the leader of the testing team)
- e. The place to destroy the test material residuals in the LUT location.
- f. Checkpoint
- g. List of names of officers allowed to enter the LUT location.
- h. Activity book (Log book)
- i. Control tub by paying attention to the slope of the land in the LUT

2. LUT Management and Supervision

2.1. Location Manager

The manager or person in charge of the location must have adequate knowledge of PRGs, including understanding of regulations on biosafety (Government Regulation Number 21 of 2005). The main task of the location manager is to be responsible for environmental security, carrying out PRG plant testing on the LUT, and carrying out reporting.

2.2. Access to the LUT

Access to the LUT is limited to only designated and registered officers. Every officer who conducts activities within the LUT must be recorded in the activity book (log book).

2.3. Supervision of Implementation of Testing in the LUT

- 2.3.1. TTKH PRG monitors the implementation of the environmental safety testing of PRG crops on the LUT;
- 2.3.2. Supervision needs to be done to ensure:
 - a. The research methodology related to environmental safety is carried out in accordance with what is stated in the proposal;

- b. Recording, packaging and labeling of the material used for testing is carried out correctly;
- c. There were no test materials that escaped out of the LUT location except for those planned and recorded;
- d. Harvesting equipment has been cleaned of all forms of test material before being taken out of the LUT location;
- e. If an unplanned test material is released, it must be reported immediately to the TTKH PRG secretariat, and in this case the incident location must be marked and security measures taken..

2.4. Emergency Management

In the event of an emergency, the following must be handled:

- a. SOPs for unplanned events, for example natural disasters such as floods, storms, earthquakes, or uncontrolled pest outbreaks (plant disturbing organisms), and how to overcome them must be available and understood by officers.
- b. Any unplanned events must be recorded and reported.
- c. Officers who can be contacted at any time, either by telephone or e-mail, who are ready to act accurately after the report.
- d. Reporting must be done immediately after the event. The location manager reports to the person in charge of the activity (the applicant) who then must report to TTKH PRG no later than 3 days after the incident. Delays in reporting will get sanctions..

2.5. Security

- a. To avoid gene flow, the flower must be closed or cut and destroyed before pollination occurs.

- b. If the seeds from the PRG flower will be taken for further testing and research, the flower must be closed immediately after pollination. (skip *asked to breeders)
- c. Special protection measures must be taken to ensure that the parts of the harvested plant are properly isolated, for example put in a closed and labeled container.
- d. Each research unit must be marked.
- e. Special notice is given to everyone who works in the LUT area, for example "not taking and carrying seeds, plants or parts of PRG plants outside the LUT area".

3. Planting Procedures

To prevent the transfer of the tested gene, the isolation steps that must be carried out are as follows:

a. Biological Isolation

Planting PRG plants on land that is not planted with similar plants; and
/ or

b. Time Isolation

Planting PRG plants not concurrently as planting similar crops around the location, so the flowering time is different; and / or

c. Reproductive Isolation:

- Covering male flower of PRG crops with paper bags that are not easily damaged, to prevent cross pollination; or
- Harvesting the PRG crops before flowering; or
- Conducting castration (removing male flowers) of PRG crops before pollen matures; or

- Planting non-PRG crops of the same kind as PRG plant pollen traps.

d. Distance Isolation

To prevent the transfer of new genes from PRG plants to similar plants and their relatives, the minimum isolation distance must be adjusted to the types of plants, as follows:

Plant	Minimum isolation distance
Chili (<i>Capsicum</i> spp)	20 meters
Wheat (<i>Triticum aestivum</i>)	30 meters
Beet Sugar (<i>Beta vulgaris</i>)	3 meters
Corn (<i>Zea mays</i>)	200 meters
Peas (<i>Pisum sativum</i>)	10 meters
Soybean (<i>Glycine max</i>)	10 meters
Potatoes (fertile males) (<i>Solanum tuberosum</i>)	200 meters
Rice (<i>Oryza sativa</i>)	100 meters
Strawberry (<i>Fragaria vesca</i>)	200 meters
Sugarcane (<i>Saccharum officinale</i>)	10 meters
Tobacco (<i>Nicotiana tabacum</i>)	400 meters
Tomato (<i>Lycopersicon esculentum</i>)	20 meters

In the isolation area, the minimum distance is preferably planted with non-similar plants. If non-similar plants cannot be provided, the area should not be planted at the same time as similar plants.

4. Testing Parameters

The test parameters include testing the impact on non-target organisms based on biodiversity, abundance and / or indicators of function of certain groups of organisms. Considering the complexity and the many types of organisms that exist around PRG plants, it is necessary to determine key species or organisms useful to facilitate data analysis and decision making on the influence of PRG on the environment. Given that determining key species is very difficult, more detailed information about where and when proteins from new genes are expressed will be very helpful in determining key species. For example, in PRG plants resistant to insects, if protein is expressed in all parts of the plant, then besides target insects, the effect of PRG crops on insects that consume leaves (herbivores) must also be observed.

Criteria for determining key species are:

- a. Its role in the ecological system.
- b. The tendency of organisms to be exposed to compounds produced by PRG.
- c. Representation of taxonomic groups or functional groups. If the specifications of the compounds expressed by PRG plants are known, certain taxonomic or functional groups are prioritized to be observed.

List of examples of non-target insects that must be observed in the testing of transgenic corn resistant to corn stem borer, as follows::

NO.	FUNCTION	HABITAT	FAMILY / SPECIES
1.	Herbivore	Land: root eater	<i>Lepidiota stigma</i> atau <i>Phyllogaha helleri</i>
		Seedlings	<i>Atherigona oryzae</i>
			<i>Agrotis spp.</i>

		Leaves	<i>Spodoptera litura</i>
			<i>Oxya chinensis</i>
			<i>Peregrinus maidis</i> atau <i>Rhopalosiphum maidis</i>
		Cob	<i>Helicoverpa armigera</i>
2.	Parasitoid	Egg	<i>Trichogrammatidae</i>
		Larvae	<i>Braconidae</i>
3.	Predator	Egg	<i>Coccinellidae</i>
			<i>Chrysopa</i>
4.	Polinator	Flower	<i>Apidae</i>
5.	Decomposer	Land and litter	<i>Collembola</i> <i>Coleoptera</i> <i>Acari</i>

If the LUT must observe some aspects of biology of non-target insects that are difficult to carry out in the field, then the test of the PRG effect is carried out in the laboratory. To fulfill this, a species that is easily handled shall be determined so that the data obtained can be accounted for.

Testing the impact of PRG plants on biodiversity

Observation plots of biodiversity are made inside and outside the LUT area. Observations inside the LUT area are intended to determine the condition of biodiversity that may be affected by PRG plants tested. Observations outside the LUT are intended to compose a baseline for the diversity of insect functional groups. The initial expression must be obtained if the data is not yet available. The observation location is a similar planting area that does not allow interaction but has the same ecosystem as the PRG plants tested in the LUT. This area can be in the form of farmer planting land or an area specifically planted by the applicant for observation purposes. If biodiversity data is already available for the same ecosystem, there is no need to observe biodiversity outside the LUT area.

5. Harvesting and Destruction of Test Residuals

5.1. Harvesting

The procedure for harvesting test results is as follows :

- a. Harvesting is carried out by trained personnel who understand the procedures for handling PRG plants.
- b. PRG material must always be at the location of the LUT and is prohibited from being taken outside the location of the LUT area.
- c. If the part of the PRG plant will be stored or used for other research in the form of seeds or other parts of the plant, it must be reported to TTKH. The utilization of plant parts taken must be carried out in accordance with procedures that apply the precautionary principle as described in the Chapter of handling, storage and transportation of PRG materials.

5.2. Destruction of Test Materials

Conditions for the destruction of test material are as follows:

- a. Test material that is not needed for testing must be destroyed, among others, by burning, boiling or killed off with chemicals or herbicides in the LUT area.
- b. Test material brought for further analysis in the laboratory and greenhouse that has been used, the remaining test material must be destroyed either by autoclave, burnt or other methods that guarantee all remaining test material dies.
- c. All parts of PRG crops in the LUT area are prohibited from being used as food and / or feed ingredients.

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ATTACHMENT IV REGULATION OF THE MINISTER OF ENVIRONMENT AND FORESTRY

NUMBER : P.69/MenLHK/Setjen/Kum.1/8/2016

ON : PROCEDURES FOR THE ENVIRONMENTAL SAFETY TESTING OF GENETICALLY ENGINEERED PRODUCTS IN LIMITED TEST FIELD

POST-TESTING OF PRG PLANTS IN THE LUT

1. Volunteer Monitoring

Post-harvest monitoring must be carried out to ensure the absence of volunteer plants. Volunteer monitoring is carried out routinely at least 1 (one) growing season according to commodities. If volunteers are found, they must be destroyed. The procedures for the destruction of volunteer plants, both PRG and non-PRG, including borders, must be applied, for example by revoking volunteer plants, reversing the soil, applying certain approved herbicides or chemicals. During the monitoring, the LUT must still be surrounded by a locked fence. For monitoring purposes, information is needed about the parts of the plant that can be used to maintain survival, including the following:

PLANT TYPE	SCIENTIFIC NAME	PLANT PART
Broccoli	<i>Brassica oleraceae</i>	Seed
Sunflower	<i>Helianthus annuum</i>	Seed
Chili	<i>Capsicum annuum</i>	Seed, fruit
Beet sugar	<i>Beta vulgaris</i>	Seeds, tuber
Corn	<i>Zea mays</i>	Seed
Soy	<i>Glycine max</i>	Seed
Potato	<i>Solanum tuberosum</i>	Seeds, tuber
Melon	<i>Cucumis melon</i>	Seed, fruit
Rice	<i>Oryza sativa</i>	Seed, seedling
Petunia	<i>Petunia hybrid</i>	Seed, pod
Sawi	<i>Lactuca sativa</i>	Seed
Tobacco	<i>Nicotiana tabacum</i>	Seeds, pod

Tomato	<i>Lycopersicon esculentum</i>	Seed, fruit
Sugarcane	<i>Sacharrum officinarum</i>	Shoot buds on the stem

2. Use of ex-LUT land

Ex-LUT land should not be used for similar crops for a certain period depending on the PRG commodity, which are as follows:

PLANT	TIME PERIOD
Chili (<i>Capsicum</i> spp)	1 year
Wheat (<i>Triticum aestivum</i>)	1 year
Beet Sugar (<i>Beta vulgaris</i>)	2 years
Corn (<i>Zea mays</i>)	6 months
Peas (<i>Pisum sativum</i>)	6 months
Soybean (<i>Glycine max</i>)	6 months
Potatoes (fertile males) (<i>Solanum tuberosum</i>)	1 year
Rice (<i>Oryza sativa</i>)	1 year
Strawberry (<i>Fragaria vesca</i>)	6 months
Sugarcane (<i>Saccharum officinale</i>)	2 years
Tobacco (<i>Nicotiana tabacum</i>)	6 months
Tomato (<i>Lycopersicon esculentum</i>)	1 year

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