

State University of Makassar

**INTERNATIONAL CONFERENCE ON MATHEMATICS,
SCIENCES, TECHNOLOGY, EDUCATION
AND THEIR APPLICATIONS**

*"Recent Research and Issues in
Mathematics, Sciences, Technology, Education
and their Applications"*

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TECHNOLOGY, EDUCATION AND THEIR APPLICATIONS**

Makassar, 20th – 21st august 2013

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Makassar State University**

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APPLICATIONS

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WELCOME SPEECH

Forewords from the Head of Committee

Assalamu'alaikum wa Rahmatullahi wa Barakatuh

First, I want to give our welcome to all the delegates, speakers, and participants coming today. Welcome to State University of Makassar, UNM.

This conference titled International Conference on Recent Research and issues in Mathematics, Sciences, Technology, Education and Their Applications (ICMSTEA) 2014 is assigned to the 53rd Dies Natalies of UNM. It is primarily organized by Faculty of Mathematics and Natural Science in conjunction with several committee members from other faculties within State University of Makassar.

This conference is conducted in two days from 20th of August to 21st of August in Theater Room, Pinisi Building, State University of Makassar. It involves eleven keynote speakers, ten invited speakers, and approximately 150 parallel speakers.

Ladies and gentlemen, as I previously said, the conference proudly invites twelve keynote speakers coming from several countries. Therefore, on behalf of the committee members, I would like to express my sincere thanks to the keynote speakers, specifically:

1. Professor Max Warxhauwer (Texas State University, USA)
2. Professor Naoki Sato (Kyoto Prefecture University, Japan)
3. Professor Peter Hubber (Deakin University, Australia)
4. Professor Susie Groves (Deakin University, Australia)
5. Dr. Frans Van Galen (Utrecht University, the Netherlands)
6. Assistant Professor Duangjai Nacapricha (Mahidol University, Thailand)
7. Dr. Siti Nuramaliati Prijono (the Indonesian Institute of Sciences)
8. Professor Baharuddin Aris (Universiti Teknologi Malaysia)
9. Professor Ismail bin Kailani (Universiti Teknologi Malaysia)
10. Professor Muhammad Arif Tiro (Iowa State University & State University of Makassar)
11. Professor Suratman Woro Suprodjo (Gadjah Mada University, Indonesia)

Next, it is my privilege to thank all organizing committee members who have been showing good work and determination for the accomplishment of this conference. All of them have been working since the beginning of the planning stage and they are still here today for all of us, even though they are very busy with their personal responsibilities.

On this occasion, I would like to apologize to all of you when there are some inconvenience things during the implementation of this conference since we, the organizing committee, as just human being.

Finally, I would like to thank to the speakers and the participants listed in this conference. May I wish you all two fruitful days of interesting and beneficial conference and also that you have a very pleasant stay in Makassar.

Thank you very much for all the attention.

Assalamu'alaykum wa Rahmatullahi wa Barakatuh.

Head of Committee,

Suwardi Annas, Ph.D.

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SYNTHESIS OF PESTICIDES ORGANIC OF KIRINYUH (*Chromolaena odonata*) FOR ARMYWORM AND CATERPILLAR SOIL PEST ON CABBAGE AND SCALLION

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Abstract

Pest attack remains a crucial issue in any agricultural business. Pest attacks uncontrolled will cause the loss of the investment that has been planted. Organic pesticides are synthesized using the phased extraction technology to work materials Kirinyuh root and neem leaves into pesticides. Preparation of solvent extracts using water, soaking, filtering, spraying on cabbage and leek and applications on the target pest. Necessary to control locusts 1 kg roots Kirinyuh / neem leaves and 20 liters of distilled water. Results show 60-70% of caterpillars die on cabbage and scallion. During the technical aspects necessary.

Keywords: Organic pesticides; Pests; Plant cabbage; scallions.

1. Introduction

Agriculture is one area of human endeavor to meet the food needs which have evolved long before human civilization from prehistoric times, humans get food in the forest hunting animals and gathering both tubers and seeds and start planting (Demiston *et al.*, 2008).

During human life, as long as it also agriculture will remain where food is the most basic of human needs. Food becomes a major problem world food shortages and hunger remains a difficult global issues in solving the problem.

Lately often heard complaints from the farmers because their crops due to year-over-year decline and the plants are often attacked by pests and harvest frequency continues to decline due to soil fertility and organic matter decline.

Pest attack remains a crucial issue in any agricultural business. Pest attacks uncontrolled will cause the loss of the investment that has been embedded. This problem is getting worse because synthetic pesticides are a mainstay in controlling plant pests continued to show a decrease in effectiveness. In some cases, pest attacks became so after spraying pesticide-

synthesis is done with a known case of "pest resurgence". Not to mention the impact of poisoning and environmental pollution caused by excessive use of synthetic pesticides (Isnawati, 2003)..

Farmers grow dizzy where pesticide residues are still attached to the crops, and prices soared synthetic pesticides due to the financial crisis that hit the country.

2. Material and Method

2.1 Preparation of Extract

To process materials Kirinyuh root and leaves of neem pesticides can be started from a simple technology that is the destruction of the root / leaf. Solvent water, soaking in the container. The process of extraction of active ingredients with water. The screening process of applications on the target pest. to control locusts needed dose of 1 kilogram of Kirinyuh root / neem leaves and 20 liters of clean water.

2.2 The process of making extract.

Collecting raw materials Kirinyuh and Neem leaves. Kirinyuh root / neem leaves washed with water until clean. For Kirinyuh root is cut with a small size first and then new ground by using a mortar.

Crushed neem leaves directly or can also be blended up into

smaller pieces. One kilogram of Kirinyuh root or crushed neem leaves that have been put in cisterns content of 20 liters, then add water. Immersion process at least 3 days after that can be used for applications. At the time of the control solution was filtered and added to first adhesive material (Cytowett / detergent)

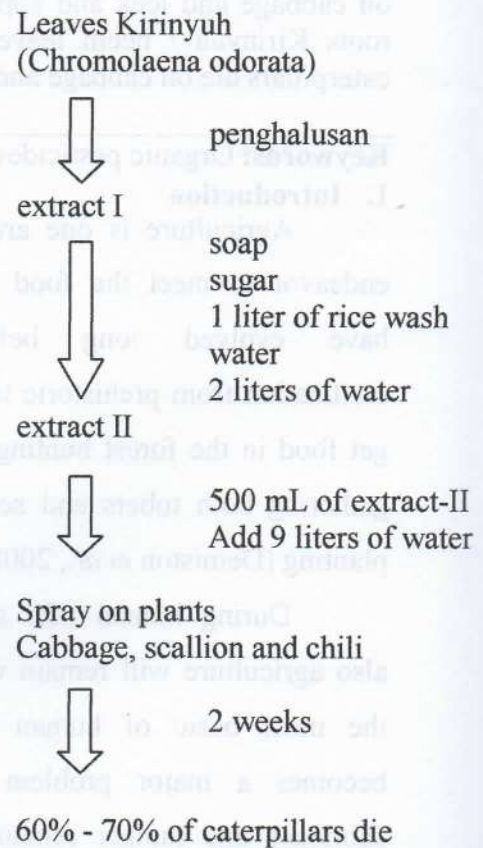


Figure 1. Flow diagram

3. Result and Discussion

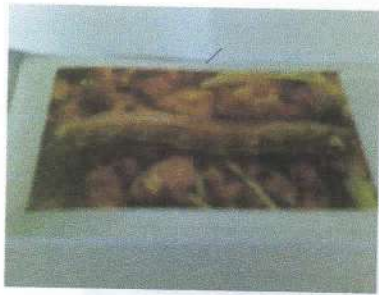
In the long term to avoid pests and locusts extract nimbi tubes can be processed in sufficient quantities by farmers and stored in a long time. So that at any time there lived locusts filtered and botanical pesticides sprayed on crops. During the technical aspects necessary steps in the integrated pest management of locusts wanderer, among others, as follows:

Monitoring the state of the population and the spread of locusts about to receive careful attention both by officers. General information about its development become inputs to take the necessary action.

Extension of integrated rehabilitated and reconstructed by various agencies to avoid burning the forest, especially around the area of agricultural / plantation land that eventually became the open, untreated and body so that it becomes a breeding shrub locusts.



Figure 2. Cabbage



Figur 3. caterpillar pests



Figure 4. Scallion

4. Conclusion

Results show 60-70% of caterpillars die on cabbage and scallion

5. Acknowledgements

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