

FUTURE PLAN IPM ACTIVITIES IN NORTH SULAWESI-INDONESIA

**ECOLOGICALLY-BASED PARTICIPATORY
IPM FOR SOUTHEAST ASIA PROJECT WORKSHOP
CILOTO, WEST JAVA. August 7 – 9, 2007**

**Dantje T. Sembel
Elisabeth M. Meray
Moulwy F. Dien
Max M. Ratulangi
Caroulus S. Rante**

FUTURE PLAN (2007/2008)

MAIN OBJECTIVES:

- 1. Increase knowledge of farmers on IPM.**
- 2. Reduce use of pesticide spraying.**
- 3. Increase production of agricultural (vegetable crops).**
- 4. Introduction of new agricultural technology**
- 5. Increase income and reduce poverty.**
- 6. Increase capacity building through research (i.e involvement of postgraduate student, master and doctorate programs).**

WORK PLAN/FUTURE PLAN

1. Biology and ecology of mirid bug on tomato – Sembel & Team/Budiman (Thesis for S2) – on going.

Objectives:

- a). To study the biology and ecology of mirid bug, *Nesiodiocoris tenuis* on tomato crop under laboratory conditions.
- b). To investigate the role of *N. tenuis* as pest of crop or and predator of insect pest.

2. FFS on potato and tomato at Modoinding (2 groups) – Unsrat Team/Bureau of Plant Protection N. Sulawesi.

Objectives:

- a). To conduct IPM field school for vegetable farmers at Modoinding.
- b). To reduce the use of pesticide in crops.
- c). To introduce new agricultural technology (i.e. mass production of SeNPV, *Trichoderma* & *Diadegma semiclausum*).

WORK PLAN/FUTURE PLAN

3. The use of biological agents (*Trichoderma*, Bt) and organic fertilizer (compost) for the development of IPM on potato at Modoinding – Unsrat Team/Bureau of Food Crops South Minahasa/Lumowa (Dissertation for S3) – *under preparation*.

Objectives:

- a). To introduce the use of *Trichoderma* and Bt for IPM program on potato crop at Modoinding.
- b). To reduce the use of pesticide.
- c). Introduce organic farming through IPM.
- d). Demonstration plot for farmers.

WORK PLAN/FUTURE PLAN

4. Study of pathogenic fungi on insect pests of vegetable crops – Unsrat Team/Pinaria (dissertation for S3) – on going.

Objectives:

- a). To identify, select and characterize pathogenic fungi from infected insect pests on vegetable crops in North Sulawesi.
 - b). To undertake pathogenicity tests on potential pathogenic fungi
 - c). To develop potential pathogenic fungi for control of insect pests on vegetable.
5. Grafting tomato plant and other solanacea on wild tomato.
- Objectives:**
- a). To demonstrate the method of grafting for tomato plant.
 - b). To control and reduce fungi and bacterial diseases on tomato to crops.
6. Management of CPB using biodegradable plastic sleeves at Pungkol (Jackson Watung, Ph.D candidate).



Thank You