

# **GROW MORE WITH LESS SPACE: URBAN AGRICULTURE **VEGETABLE** PRODUCTION**

- **FARMER-SCIENTIST RDE TRAINING PROGRAM FOR URBAN VEGETABLE BASED GARDENING AND MARKETING SUSYEMS IN CEBU CITY - Acd. RG Davide**
- **SOIL LESS APPROACH TO URBAN AGRICULTURE - Prof. Primitivo Jose A Santos**
- **HYDROPONICS AND AQUAPONICS : PROMOTING TODAY'S AGRICULTURE FOR TOMORROW'S FOOD SECURITY**



# TYPES OF URBAN AGRICULTURE

## Container Gardening





# Levels of Urban Agri



# XU (PUVeP/BayanAniahn, etc.) /NMOAA

## INITIAVES

### ▶ CHOICE OF CROPS

- ❖ COMPANION PLANTING
- ❖ INDIGENOUS CROPS : WILD CUCUMBER, TALINUM, ALIKWAY,ETC
- ❖ ORNAMENTAL CROPS ; NATURAL AIR PURIFIERS :  
Dracaena fragrans. Ficus, etc.
- ❖ DOH APPROVED CROPS WITH MEDICINAL VALUE :  
Sambong, lagundi, Ampalaya, etc.



# SLP-STUDENT LEARNING PROGRAM





# Students as Resource Persons with Crop Science Faculty





# Workshop on Soil Analysis using Soil Test Kit





# SELF WATERING Planting system (hydroponics)





# INCORPORATION OF SUSTAINABLE PEST CONTROL SYSTEMS





# ➤ *Salvinia molesta* : composting substrate and animal feed



**Also good for animal feeds,  
green manure crop and  
composting substrate**

Table I :- Analysis of the constituents of *Salvinia molesta* Mitchel

Components in sample	Composition gm/100gm dried weed sample
* Moisture (in fresh weed)	90 ± 0.61
Organic carbon (OC)	2.62 ± 0.37
Lignin	15.94 ± 0.44
Cellulose	24.12 ± 0.15
Total Nitrogen (N)	0.56 ± 0.07
Phosphorus (P)	0.09 ± 0.02
Potassium (K)	0.28 ± 0.13
Calcium (Ca)	1.13 ± 0.17
Magnesium (Mg)	0.38 ± 0.11

Values are the mean of six separate samples ± SEM.



# Moringa based agri enterprise



Intensive cultivation



Moringa as cattle feed



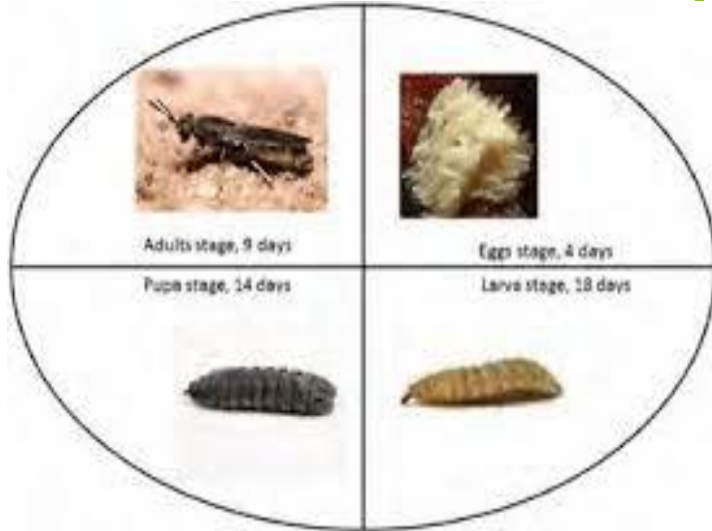
Moringa as Foliar spray



# ❖ Alternative Technology :Moringa as Green Manure

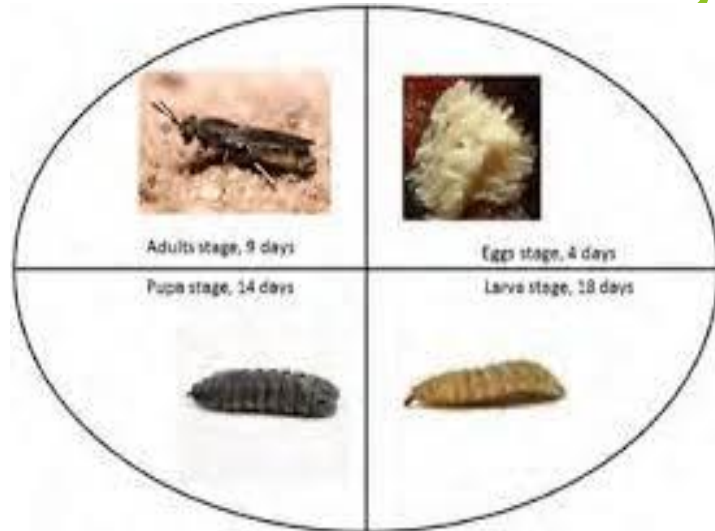


## ❖ Black soldier fly as feeds and rapid composting



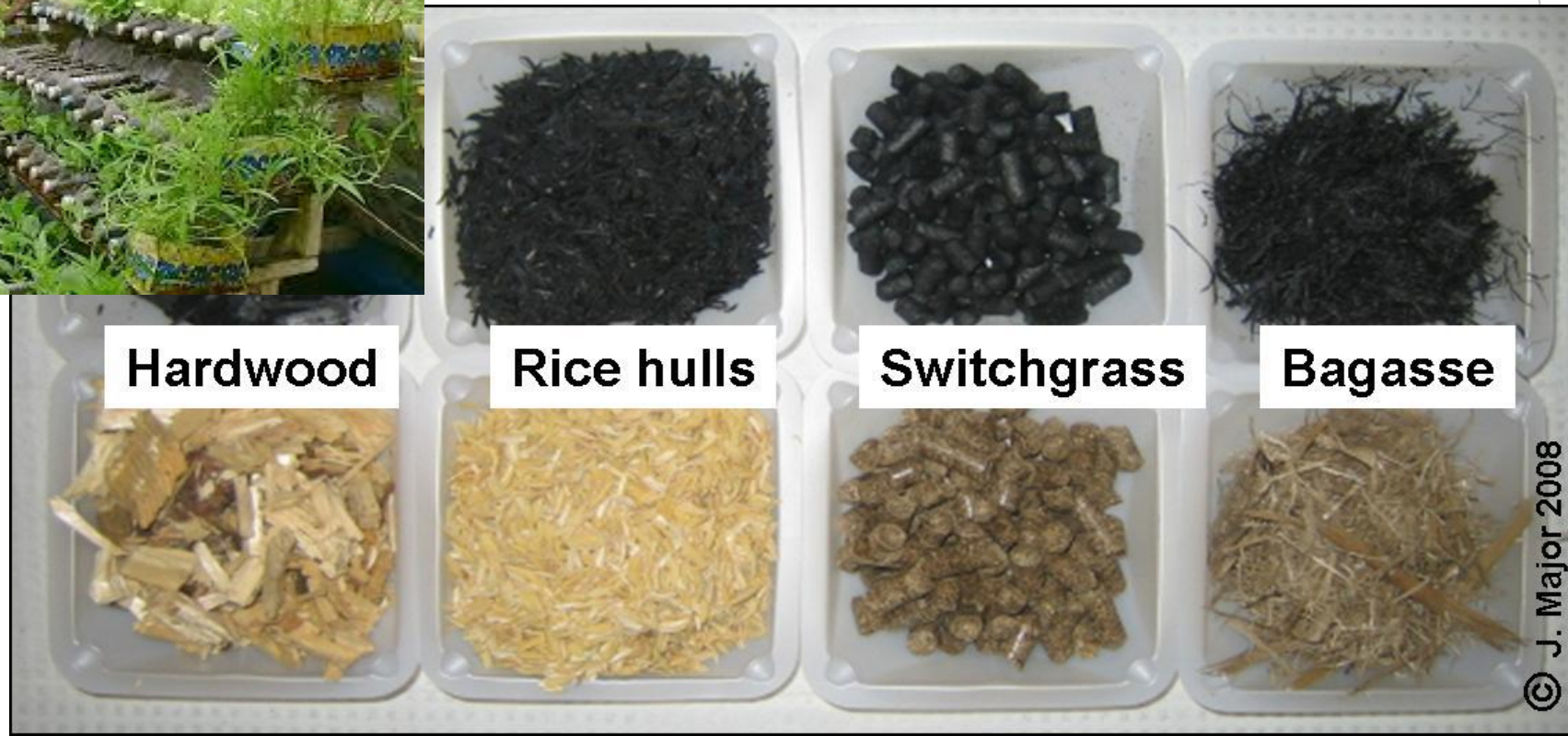


## ❖ Black soldier fly as feeds and rapid composting





## ➤ Other Sustainable Agri tech : BIOCHAR



**Hardwood**

**Rice hulls**

**Switchgrass**

**Bagasse**

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# UA : Recycling- container gardening = hydroponics and aquaponics - aeroponics (science, engineering, technology and innovations)



Thank you !!!