#### EGGPLANT

Eggplant (*Solanum melongena*) is a delicate tropical perennial plant which bears large flesh ovoid berry with glossy smooth skin and numerous small seeds. It can reach a height of 1.5 m and although they are perennial plants, they are most commonly grown as annuals. , it is considered as the country's top ranking vegetable which accounts for 28% of the total volume of top vegetables grown in the country<sup>1</sup>. It is estimated that more than 20,000 hectares with small farms ranging from 0.5 to 2.0 hectares was utilized for eggplant production in the country <sup>4</sup>. Major producers of eggplant in the country are Ilocos (29%), Central Luzon (14%) and Southern Tagalog (13%)<sup>2</sup>.

Eggplant is a main ingredient in some Filipino dishes such as "pinakbet", omelets and many others. Aside from its palatability, it promises plenty of vitamins and minerals to consumers. It contains important phytonutrients such as phenolic compounds (caffeic and chlorogenic acid and flavonoids), a good food for the brain, and helps in achieving cardiovascular health and gives protection against free radicals<sup>3</sup>. It is also an excellent source of digestion-supportive dietary fiber and bone building manganese, a good source of bone-building vitamin K, magnesium, copper, vitamin C, vitamin B6, folate and niacin<sup>4</sup>.

#### SEEDLING PREPARATION

Prepare soil media composed of 1 part vermicompost, 1 part coir dust and 1 part soil. Place prepared media in seedling trays. Sow seeds in seedling trays. After emergence of seedlings, pricking must be done to allot more space for seedlings to grow. Transfer seedlings in other seedling trays 1 seedling/hole. Spray Oriental Herbal Nutrient to seedlings once or twice a week. Three weeks after germination or when seedlings gained at least 3 leaves, transplanting in the field may be done.

#### **PREPARATION OF PLANTING BEDS**

Prepare a planting bed (at least .75m -1m wide). Plastic mulch/rice straw mulch may be place in planting beds to minimize weed growth and preserve moisture in the soil. Dig holes in the plastic much where seedlings are to be placed with a distance of at least 40 to 50cm from each other.

#### TRANSPLANTING

Three weeks after germination, eggplant seedlings are transplanted in the field. Transplanting must be done early in the morning or late in the afternoon to avoid stress to seedlings

### NUTRIENT MANAGEMENT

#### Fertilizer application

Basal application of Vermicompost to planting beds is done 3-7 days before transplanting at a rate of 0.5kg/m<sup>2</sup> – 1kg/m<sup>2</sup>.

#### **Other sources of nutrients**

Spray Fermented Plant Juice (FPJ) and Oriental Herbal Nutrient (OHN) diluted in water to tomato planta once or twice a week until fruiting stage.

Goat manure extract and vermicompost extract may also be sprayed to plants once a week from transplanting to flowering stage.

#### **Crop Protection Management (shoot borer)**

Cut the wilting shoot and leaves with hole made by the borer. Remove the borer by hand picking method.



#### HARVESTING

For consumption, eggplant fruits may be harvested when its fruits reached the shiny purple color/ table ripe stage. For seed processing, tomato fruits must have yellow to brown color.



For consumption For seed processing

#### SEED PROCESSING AND STORAGE

To extract seeds, eggplant fruits are pressed and sliced along its length and then seeds are scraped-off the fruit. Fruits and seeds are washed in water to separate seeds totally from fruits.



After extraction, seeds are placed in screens or net bags and air dried for at least three days before sun drying for at least five days.

Dried seeds may be placed in polyethylene plastic bags, plastic/glass bottles/jars and papers for storage. Storage area must have low temperature and low humidity to attain longer shelf life of seeds.

SOURCES:

<sup>1</sup>Agricultural Biotechnology Support ProjectII. Country Specific data for Eggplant in the Philippines.

http://www.absp2.cornell.edu/projects/intersect.cfm?productid=2&countryid= 3. Date retrieved, September 13, 2012

#### <sup>2</sup>Eggplant Production Guide.

http://www.vegetableipmasia.org/docs/Eggplant/EGGPLANT%20PRODUCTIO <u>N%20GUIDE.pdf</u>. Date retrieved, September 13, 2012.

#### <sup>3</sup>The worlds Healthiest

foods.http://www.whfoods.com/genpage.php?tname=foodspice&dbid=22. Date retrieved, September 13, 2012

#### <sup>4</sup>The World's Healthiest Foods .

Eggplant.http://www.whfoods.com/genpage.php?tname=foodspice&dbid=22

## VISION

BPI-LBNCRDPSC is a recognized and leading Research Development and Production center for lowland vegetables.

## MISSION

We generate crop farming technologies and produce quality seeds of lowland vegetables to ensure sustainable food production.

# **CORE VALUES**

SPICE IT!

Service – orientation: BPI is proactive who values its clients.
 Professionalism: BPI is competent abiding by the government's Code of Ethics. BPI is fair and just in the delivery of its services to its clients and personnel.
 Integrity: BPI is transparent, honest, and accountable for its action.

**C**ommitment: BPI works with passion and commitment.

Excellence: BPI produces the best results. Innovation: BPI finds new solutions. Teamwork: BPI exercises partnership and camaraderie.

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# Department of Agriculture Bureau of Plant Industry

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# ORGANIC EGGPLANT PRODUCTION

