

## WHAT IS ADLAI?



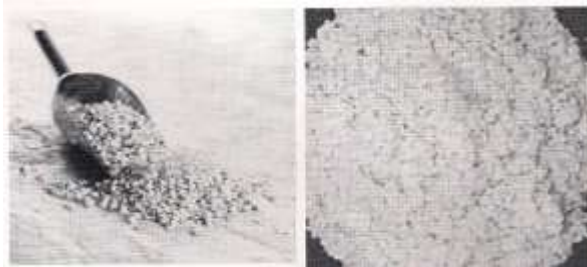
Adlai (*Coix lacryma-jobi* L.) is an indigenous crop introduced in Africa as staple food. Also known as Adlay or Job's tears, it also grows in tropical parts of Southern and Eastern Asia. Adlai is mainly eaten as a staple food substitute for rice and corn. Aside from being a staple crop, Adlai can also be processed into flour for bread making and in wine and beer production.

With the crop's potential in addressing food security, an R&D program on Adlai is currently undertaken in selected regions of the country. Relative to this, the Department of Agriculture-Northern Mindanao Integrated Agricultural Research Center (DA-NOMIARC) in Dalwangan, Malaybalay City is conducting the development, promotion and utilization of Adlai to enhance and sustainably nurture its potential as an alternative food source for Filipinos.

## USES AND BENEFITS

## AS FOOD

The grains can be cooked like rice and corn grits. Adlai can also be made into flour for baking purposes and other delicacies.



## AS FEED SOURCE

A potential feedstuff for ruminants and non-ruminants.

## AS MEDICINE

It is commonly used as medicine in China as one of the most popular food herbs in diet therapy for painful and stiff joints. The crop is known to have anti-inflammatory, antihistaminic, muscle relaxant, fever reducing and sugar lowering properties.

## AGRONOMICS CHARACTERISTICS

**Height:** 250-300 cm.

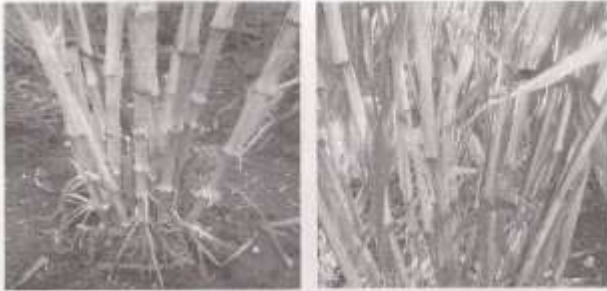
**Panicle:** Each 30 panicle can produce 15 grains.



**Stem:** Each stem can have 250g of unmilled dry grains.



**Tillers:** Produces brace roots even at 4th nodes (twice on corn). It could have an average of 12 tillers per plant



**Maturity:** In areas of low elevation, harvest can be done after 4-6 months.

**Yield:** 2,000-4,000kg/ha. Can be harvested depending on the variety. Each hill could produce 5,400 grains. Ratooning can be done 2-3 times.

**Local Varieties:** Kibua, Ginampay, Gulian and Tapol. Seeds are available at DA-NOMIARC, Dalwangan, Malaybalay City.



## Production Management

### Land Preparation

Apply manure and compost before plowing. Plow and harrow the area 3 times.

### Planting

- **Seed Preparation**  
Soak the seeds in pure water for 8 hours and incubate in 4 hours prior to planting.
- **Planting Distance**  
Make furrow spaced at 90 cm to allow the plant to produce more productive tillers. Sow 2 seeds per hill at a distance of 60 cm between hills.
- **Basal Fertilizer Application**  
Adlai is more productive when animal manure and compost are applied before plowing with an average yield of 2 tons/ha.

### Cultivation and Maintenance

- **Off-barring**  
At 3-4 weeks after planting, cultivate between rows to remove weeds.
- **Thinning**  
At 2 weeks after planting, pull-out excess plants to maintain at most two plants per hill.
- **Hilling-up**  
45 days after planting, hill-up within rows. Control subsequent weed growth by hand weeding.



## Pest Management

Integrated Pest Management (IPM) practices were employed using *Trichogramma evanescence* to control Stem borer.

## Harvesting and Post Harvest Operations



The crop can be harvested by cutting its branches and stems at one foot from ground level at 120 days after planting.

Grains can be separated from panicle by threshing, and/or smashing (lambos). Dry grains to 14% moisture content (MC).

Adlai can be milled through rice and corn mills. It has a 60% milling recovery (depending on the varieties).

Ratooning can be done 2-3 times after harvest of the main crop.

## NUTRITIONAL VALUE

Seed (fresh weight) in grams per 100g weight of food:

Water	: 11.2
Calories	: 38.0
Protein	: 15.4
Fat	: 6.2
Carbohydrate	: 65.3
Fiber	: 0.8
Ash	: 1.9

In milligrams per 100g weight of food

Calcium	: 25
Phosphorous	: 43.5
Iron	: 5
Vitamin A	: 0
Thiamine	: 0.28
Riboflavin	: 0.19
Niacin	: 4.3
Vitamin C	: 0