Harvesting and Post Harvest Operation

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).

Adlay 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.

Agronomic Characteristics

Height: 250-300 cm.

Panicle: Each 30 panicle can produce 15 grains. Each stem can have 250g of unmilled dry grains.

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

Yield: 2000-4000 kg/ha. can be harvested depending on the variety. Each hill could produce 5,400 grains. Ratooning can be done 2-3 times.

Varieties: Gulian, Kiboa, Ginampay, Tapol

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Source of Technology:
Adlai Production Guide-Northern Mindanao Integrated Agricultural Research Center (NOMIARC)
Dalwangan, Malaybalay City

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Adlay (Coix lacryma-jobi L.) is a freely-branching upright herb that can grow as tall as three feet and propagates through seeds. Also known as “Job’s tears” due to the tear-like shape of its grains (white or brown in color), it comes from the family Poaceae or the grasses, the same family that wheat, corn, and rice belong. It can be grown in sandy loam, and clay type of soils.
THE ADLAY CROP

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

With the crop’s potential in addressing food security, an R&D program on Adlay is currently undertaken in selected regions of the country. Relative to this, the Department of Agriculture - Southern Mindanao Integrated Agricultural Research Center (DA-SMIARC) in Bago Oshiro, Tugbok District, Davao City is conducting the development, promotion and utilization of Adlay 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. Adlay can also be made into flour for baking purposes and other delicacies.

**As feed source**
A potential feedstuff for ruminant and non-ruminants.

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

### Nutritional Content

| In milligrams per 100g weight of food: |
| Seed (Fresh weight) in grams per 100g weight of food: |
| Water   : 11.2 |
| Calories: 38.0 |
| Protein : 15.4 |
| Fat     : 6.2  |
| Carbohydrates : 65.3 |
| Fiber   : 0.8  |
| Ash     : 1.9  |

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

### 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 furrows 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
Adlay is more productive when animal manure and compost are applied before plowing at the rate 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.