# AKARKARA

Commercial Cultivation

**A Unique and Versatile Herb** 



#### INTRODUCTION

Akarkara belongs to Asteraceae family of plants and its botanical name is <u>Anacyclus pyrethrum</u>. It is an herb with many medicinal uses. Apart from Ayurveda, it is used by other alternative systems of medicine like Unani and Homeopathy.

The herb is mostly known and famous for its aphrodisiac effect on the body and helps in the detoxification of excess wastes and fluids from the body.

Most beneficial and useful part of plant is the root which is medicinally used in the form of dried powder.

The Root Is Almost Cylindrical, Very Slightly Twisted And Tapering And Often Crowned With A Tuft Of Grey Hairs. Externally It Is Brown And Wrinkled, With Bright Black Spots. The Fracture Is Short, And The Transverse Section, Magnified, Presents A Beautiful Radiate Structure And Many Oleoresin Glands. The Taste Is Pungent And Odour Slight.

Akarkara (Spilanthes Acmella) grows naturally in most parts of India, as per practical experience it can grow successfully in the specific range of temperature and rainfall. Good soil with proper drainage system facilitates its growth. We at Click-N-Grow Agroventures Pvt Ltd provide, contract farming, consultancy and training for cultivating Akarkara to our farmers all across the India.



#### **MEDICINAL USES**

Pyrethrum plant is used for various medicinal the main use is enlisted as:

- Pyrethrum kills insects by disrupting their nervous systems. Pyrethrins are toxic to the "sodium channel" the cellular structure that allows sodium ions to enter a cell as part of the process of transmitting a nerve impulse.
- Pyrethrum root used almost exclusively as a sialagogue in headache, neuralgic and rheumatic affections of the face, toothache, etc., or as a local stimulant in epalsy of the tongue or throat, or relaxation of the uvula.
- The powdered root forms a good snuff to cure chronic catarrh of the head and nostrils and to clear the brain, by exciting a free flow of nasal mucous and tears.
- Pyrethrum contains anacycline, isobutylamide, inulin and a trace of essential oil. Use of the drug in patients with insulin dependent diabetes mellitus reduces the dose of insulin. It decreased the plasma glucose and serum cholesterol levels after oral administration for 3–6 weeks.
- The powdered herb or root snuffed up the nostrils produces sneezing and eases headache.
- Patients seeking relief from some rheumatic or neuralgic infections of the head and face, or for palsy of the tongue, have been advised to chew the root daily for several months.

Farmer's e-Buddy

#### **SOIL & CLIMATE**

According to agricultural experts, drainagefriendly land is optimal for growing akarkara. The yield will be high if the field's soil is loose and soft. Its sowing is thought to be best during the months of October and November. Farmers can also directly grow it using seeds and planting seedlings, however, results in greater yield.

Well drained light and medium loamy, loamy and black soils are suitable. It grows



est in areas, which have mild cool climate and a short winter and cool summer with an annual rainfall of 100 cm or more. A period of chilling in which the temperature falls below 17°C for six weeks is necessary for flower bud initiation.

Akarkara plants require a 20-to-25 degree temperature to germinate. Initially, plants also require a minimum temperature of 15 and a maximum of 30 degrees to develop well, and they need 35 degrees of temperature at the time of ripening.

#### **SEED**

'Hansa' is the released variety from CIMAP, Kodaikanal. Akarkara is propagated by seeds with a seed rate of 5 kg seed per acre. Seedlings are raised in nursery beds and transplanted after 6 - 8 weeks at a spacing of 15 x 10 cm. or can be directly braodcasted by hand. The broadcasting method is economical and also gives good production.



#### **SEASON**

April - May and October – November are the optimum months for cultivation.

#### PREPARATION OF LAND

- The land is to be prepared in the month of May-June.
- A proper soil treatment program should enhance land drying and pulverization.
- Approximately 10 t of well-rotten Farm Yard Mannure should be mixed with 1 ha.
- The distance between two beds should be kept at 2 metres for irrigation. Prepare beds or plain pans (as per plantation planning).
- Before planting the planting material, the land should be adequately watered.



#### **MANURING**

- Fertilizers: In addition to FYM, apply a balanced fertilizer dose of NPK (Nitrogen, Phosphorus, Potassium) at the rate of 60:40:40 kg/ha.
- Application: Split the fertilizer dose, applying half at planting and the rest in two split doses during the growing season



#### **IRRIGATION**

- Frequency: Irrigate
   the crop
   immediately after
   sowing.
   Subsequent
   irrigation depends
   on the soil moisture
   condition.
- Schedule:
  Generally, irrigate
  the crop every 7-10
  days during dry
  periods. Avoid
  waterlogging,
  which can damage
  the roots.

#### WEED MANAGAMENT

- Manual Weeding: Regular manual weeding is necessary to keep the field free of weeds. Weeding should be done 2-3 times during the growing season.
- Mulching: Use organic mulch like straw or leaves to suppress weed growth and conserve soil moisture.

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#### PEST AND DISEASE MANAGEMENT

- Common Pests: Aphids and root borers are common pests. Regular monitoring and early intervention with organic or chemical pesticides are recommended.
- Diseases: Root rot and powdery mildew are common diseases. Use diseasefree seeds, ensure proper drainage, and apply appropriate fungicides if necessary.

#### **HARVESTING**

- **Time**: Akarkara roots are ready for harvest 6 months after planting, usually when the plant starts to dry out.
- Method: First harvest the mature flowers from time to time which can be dried
  and sell in open market, also these seeds can be kept for next season for
  planting. Harvest the roots manually using a spade or hoe to avoid damage.
  Ensure roots are fully mature for maximum medicinal properties. Or many
  farmers use cultivator to dug out the roots from soil, this saves time of farmer.
- **Post-Harvest Handling:** Clean the roots thoroughly to remove soil. Dry the roots in shade for 7-10 days until they reach a moisture content of about 5-7%.



#### **YIELD**

Average Yield: The average yield of Akarkara roots is about 800-1000 kg per acre, depending on cultivation practices and environmental conditions.

#### **MARKET DEMAND**

Akarkara has a good market demand in the pharmaceutical and herbal medicine industry.

## PER ACRE COST OF CULTIVATION

Sr No	Particulars	Work	Amount	
1	Land Preparation	Deep ploughing, rotavating etc	2,000	
2	Organic Fertilizers	Organic Growth Booster, Pesticides, Fertilize	5,000	
3	Akarkara Seed	5 kg x Rs.1000/kg	5,000	
4	Sowing	Sowing of Seeds	1,000	
5	Electricity Bill	Irrigation	1,000	
6	Harvesting	Flower and root harvesting	4,000	
7	Packing	Packing of harvested material	1,000	
8	Transportation & other expenses	Transporation of Seed, Fertilizer and Harvested Material	15,000	
9	Total Expenses	34,000/-		

## PER ACRE OUTPUT

Sr No	Production	Details	Amount
1	Dry Seeds	250 kg x Rs.90 per kg	Rs. 22,500/-
2	Dry Roots	700 kg x Rs.150 per kg	Rs.105,000/-
3	Total Output		Rs.127,500/-
4	Total Expenses		Rs.34,000/-
5	Net Profit (6 Months)		Rs. 93,500/-

















### INTERLINKED FARM SOLUTIONS AT ONE PLACE

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## Click-N-Grow Agroventures Pvt. Ltd.



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