

Benefits and Cultivation of Super-Food: Horse Gram

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Introduction

Horse gram is also known as “*Kulthi*” in Hindi and scientifically it is known as *Macrotyloma uniflorum*. It is a pulse crop which is a native to tropical regions of Africa and South Asian Subcontinent. It is a leguminous crop which is mainly grown in south India. It is also rich in protein content and is consumed as sprouts by humans. It is very high-powered. That is why race horses are fed with this gram, which became popular as horse gram.

Climate Required

Horse gram can be cultivated in both tropical and subtropical regions. This crop requires annual rainfall of about 500-600 mm and also referred as drought resistant crop. Temperature required for its growth ranges from 21-35 degree centigrade.

Sowing time

It is sown in late August- October. For fodder purpose it is sown during June- August.

Soil required

It can be grown on wide range of soils but black soils and loamy soil are best for its cultivation.

Improved Varieties

CRIDA 1-18R, CRHG-1, CRHG-2, CRHG-3, CRHG-4, VL GAHAT1, VL GAHAT 8, VL GAHAT 10, Palem 1, Palem 2, Pratap kulthi, Indira kulthi 1



Fig: Horsegram seeds

Seed rate

35-40 Kilograms seed is sufficient for 1 hectare. Seeds should be free from diseases and damaged seeds should be removed. Seeds should be sown at 2 cm depth and plant to plant distance should be at 10 cm and Row-row distance at 30 cm.

Fertilizer requirements

FYM and Manures should be added for good seed production along with basal application of 45 kilograms Urea and 130 kilograms of super phosphate is sufficient for one hectare.

Irrigation

Irrigation should be applied before the flowering stage and Pod formation stage.

Weed control

Basalin 2 ml per litre water should be sprayed within 3 days of sowing and irrigation.



Fig: Horse gram bean

Pests and Disease control

Pod borer	Spray of NPV @ 250 LE/ha. or <i>Quinolphos</i> 25 EC @ 2 ml/liter water
Jassids	<i>Dimethoate</i> 30 EC @ 1.7 ml/liter water
Aphids	Spray of <i>Oxydemeton methyl</i> 25 @ 1 ml/liter
Yellow mosaic Virus	Grow resistant varieties or Spray of <i>Oxydemeton methyl</i> 25 @ 2 ml/liter
Root rot disease	Seed treatment with 2g <i>captan</i> per kg of seed

Harvesting and Yield

As other kharif pulses of *Vigna* group, harvesting is done. Optimum yield is about 8-10 quintals per hectare.

Health benefits of horse gram

1. Full of Anti-oxidants

Horse gram seeds are rich in polyphenols, flavonoids and proteins – the major antioxidants present in fruits that makes them so healthy

2. Relief from asthma

Acts as a Ayurvedic medicine for asthmatic patients by consuming the paste of boiled horse gram and pepper, which aids in reducing cough, cold and congestion. Although not a cure for asthma, it has been known to provide immediate relief and help manage breathing problems.

3. Prevents from kidney stones

Due to its diuretic properties, horse gram is very effective in assisting in the removal of kidney stones.

4. Keep heart diseases away

Raw horse gram is particularly rich in polyphenols, flavonoids and proteins, the major antioxidants. It is also low in fat and high in carbohydrate content, making it healthier for the heart.

5. Warming property

Horse gram can be consumed in the form of soup and has the ability to generate heat and energy in the system and therefore keeps body warm on a cold winter day.

6. Controlling menstrual cycles

Horse gram contains iron in high levels, which helps to cure irregular menstrual cycles. It also increases your blood haemoglobin due to its high iron content.

7. Horse gram also helps in reducing weight in the humans.
8. Horse gram also increases the sperm count in men.
9. Horse gram regulates blood sugar levels among the diabetics patient.

